

20010711.qrp v02_n247.qrl.20010711

Date: Wed, 11 Jul 2001 19:03:11 EDT

From: qrp-l@Lehigh.EDU

To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>

Subject: QRP-L digest 2247

QRP-L Digest 2247

Topics covered in this issue include:

- 1) [102148] TAC 2001 Results are in!!
by "Ron Polityka" <wb3aal@fast.net>
- 2) [102149] Re: Test Post-Don't Read
by "James R. Duffey" <jamesd1@flash.net>
- 3) [102150] Re: ham radio unchanged
by N0tk@aol.com
- 4) [102151] # 58YP3A !!!
by "George Osier" <gosier@twcnny.rr.com>
- 5) [102152] Re: but Relevant, Panasonic laptop CF-25 HELP
by "Mike Yettsko" <myettsko@insydesw.com>
- 6) [102153] Tall Ship Challenge Special Event station
by "Charles Mabbott" <crmabbott@mediaone.net>
- 7) [102154] Aerials 101 / MMANA / REFLECTIONS II
by John R Kirby <n3aaz-qrp@juno.com>
- 8) [102155] Re: I Have An Idea
by "Randall Jouett" <rules@bellsouth.net>
- 9) [102156] Re: I Have An Idea (fwd)
by "Randall Jouett" <rules@bellsouth.net>
- 10) [102157] re:SATIRE: Has anybody here seen my old friend QRP-L?
by John Farler <jfarler@peoplepc.com>
- 11) [102158] WOMC Cub Fox...
by "Jerry McCollom" <w0mc@club-pre.org>
- 12) [102159] Re: I Have An Idea
by "Randall Jouett" <rules@bellsouth.net>
- 13) [102160] Re: I Have An Idea
by "Randall Jouett" <rules@bellsouth.net>
- 14) [102161] Re: [fpqrp] I Have An Idea
by "Randall Jouett" <rules@bellsouth.net>
- 15) [102162] FOX - One Down...
by Todd Enders <enders@bolshoi.cc.misu.nodak.edu>
- 16) [102163] w0mc foxii
by Wayne Williams <aa5jj@swbell.net>
- 17) [102164] Re: FOX - One Down...
by KB7WW Art Moe <kb7ww@uswest.net>
- 18) [102165] Re: WOMC Cub Fox...
by Wayne Williams <aa5jj@swbell.net>
- 19) [102166] WOMC CUB FOX QRT DUE TO WX

by "Jerry McCollom" <w0mc@club-pre.org>
20) [102167] Re: w0mc foxii
by "George, W5YR" <w5yr@att.net>
21) [102168] Re: W0MC CUB FOX QRT DUE TO WX
by "Jerry McCollom" <w0mc@club-pre.org>
22) [102169] Re: W0MC CUB FOX QRT DUE TO WX
by "George, W5YR" <w5yr@att.net>
23) [102170] I am STOKED!!!
by "Brian Murrey" <bmurrey@amexol.net>
24) [102171] Re: I Have An Idea
by "Randall Jouett" <rules@bellsouth.net>
25) [102172] test MESSAGE
by Wayne Williams <aa5jj@swbell.net>
26) [102173] having trouble posting ???
by Wayne Williams <aa5jj@swbell.net>
27) [102174] Re: [fpqrp] I Have An Idea
by Robert Clark <res03db2@gte.net>
28) [102175] Cub Foxii tonight
by "David Porter" <aa3ur@home.com>
29) [102176] RE: I have an idea
by "Mike Mullins" <mmullins@mastnet.net>
30) [102177] Re: I Have An Idea (fwd)
by Robert Clark <res03db2@gte.net>
31) [102178] Why "Piedmont" Radio Electronics Club?
by "Rod Cerkoney, N0RC" <rod@n0rc.com>
32) [102179] KB9YIG cub fox
by "Tony Parks" <robert.parks11@gte.net>
33) [102180] Re: I have an idea
by "George, W5YR" <w5yr@att.net>
34) [102181] RE: Why "Piedmont" Radio Electronics Club?
by Kenneth Hoglund <hoglund@wfu.edu>
35) [102182] Antenna nights
by ARDUJENSKI@aol.com
36) [102183] New Art & Skill
by Kenneth Hoglund <hoglund@wfu.edu>
37) [102184] Fox--Thursday night Twofer Event
by "Bob Tellefsen" <n6wg@earthlink.net>
38) [102185] NW DX Convention: any QRP'ers?
by "N7SG K7FD" <k7fd@hotmail.com>
39) [102186] 17mtr DSB: RX news. Need AF amp advice.
by Bill Meara <n2cqr@clix.pt>
40) [102187] Re: I Have An Idea
by "Graeme Zimmer" <gzimmer@optushome.com.au>
41) [102188] Receiver questions/ LM386
by "Tom Bowman" <tbowman@nbn.net>
42) [102189] Re: 2M QRP rig Design
by "Mark J. Dulcey" <mark@buttery.org>
43) [102190] Re: Why "Piedmont" Radio Electronics Club?

by "Richard Clemens" <clemens@wwwc.edu>
44) [102191] Re: 2M QRP rig Design
by "Dennis Ponsness" <wb0wao@hotmail.com>
45) [102192] Re: CW Test
by Ray Sills <raysills@1stconnect.com>
46) [102193] Re: Why "Piedmont" Radio Electronics Club?
by "Richard Brummer, K2JQ" <k2jq@bestweb.net>
47) [102194] ANT ROTOR PROBLEM
by "DONALD G. DORN" <DDORN@CWIS.NET>
48) [102195] Re: Why "Piedmont"
by Harris Keith E CONT CNIN <harris_k@crane.navy.mil>
49) [102196] RE: CW Test
by "Lofstead, Jerry" <Jerry.Lofstead@itb.mckhboc.com>
50) [102197] Re: Receiver questions/ LM386
by "Leon Heller" <leon_heller@hotmail.com>
51) [102198] Re: 17mtr DSB: RX news. Need AF amp advice.
by "Leon Heller" <leon_heller@hotmail.com>
52) [102199] RE: CW Test
by Bill Coleman <aa4lr@arrl.net>
53) [102200] Re: New Code Testing
by Bill Coleman <aa4lr@arrl.net>
54) [102201] RE: I Have An Idea
by Bill Coleman <aa4lr@arrl.net>
55) [102202] Re: The radio astronomy post
by Bill Coleman <aa4lr@arrl.net>
56) [102203] Re: I Have An Idea
by Bill Coleman <aa4lr@arrl.net>
57) [102204] Re: 2M QRP rig Design
by "Mark J. Dulcey" <mark@buttery.org>
58) [102205] Re: 2M QRP rig Design
by "Ed Manuel (N5EM)" <n5em@flash.net>
59) [102206] "Club-pre" get "Radio Active"
by "Rod Cerkoney, N0RC" <rod@n0rc.com>
60) [102207] Re: 17mtr DSB: RX news. Need AF amp advice.
by "Dave Fifield" <ad6a@earthlink.net>
61) [102208] Re: I Have An Idea
by "Randall Jouett" <rules@bellsouth.net>
62) [102209] Re: I Have An Idea
by "Randall Jouett" <rules@bellsouth.net>
63) [102210] Re: I Have An Idea
by "DTX" <dtx@wood.tzo.com>
64) [102211] Re: CW Test
by Bill Coleman <aa4lr@arrl.net>
65) [102212] Re: CW Test
by Bob Nielsen <nielsen@oz.net>
66) [102213] My Apology to EE's
by "Randall Jouett" <rules@bellsouth.net>
67) [102214] Re: 2M QRP rig Design

by "Dennis Ponsness" <wb0wao@hotmail.com>
68) [102215] Re: 2M QRP rig Design
by "Dennis Ponsness" <wb0wao@hotmail.com>
69) [102216] Re: Receiver questions/ LM386
by "Mike Branca" <w3irz@att.net>
70) [102217] Re: Receiver questions/ LM386
by agtaylor@llnl.gov
71) [102218] Wow what's out there!
by "Karl F. Larsen" <k5di@zianet.com>
72) [102219] Re: Why "Piedmont" Radio Electronics Club?
by "Tom Curtola" <tcurtola@home.com>
73) [102220] RE: Receiver questions/ LM386
by "Lofstead, Jerry" <Jerry.Lofstead@itb.mckhboc.com>
74) [102221] Callsign change
by "Dave Benson" <nn1g@earthlink.net>
75) [102222] Re: I Have An Idea
by "Randall Jouett" <rules@bellsouth.net>
76) [102223] Re: Receiver questions/ LM386
by "Leon Heller" <leon_heller@hotmail.com>
77) [102224] NN1G out of circulation
by dmaliniak@penton.com
78) [102225] Re: I Have An Idea (fwd)
by Bill Coleman <aa4lr@arrl.net>
79) [102226] Re: Callsign change
by "John Dorson" <JDORSON@worldshare.net>
80) [102227] Re: NW DX Convention: any QRP'ers?
by Bob Nielsen <nielsen@oz.net>
81) [102228] Polarized Capacitor Question
by "Dennis Payton" <dpayton@fwi.com>
82) [102229] Re: My Apology to EE's
by "laura halliday" <marsgal42@hotmail.com>
83) [102230] DSPing
by "Steven Weber" <kd1jv@moose.ncia.net>
84) [102231] 2M QRP rig Design
by "Steven Weber" <kd1jv@moose.ncia.net>
85) [102232] MFJ 9406 schematic help please
by "Brockwell, Stephen E. CECOM SEC FSSE ILEX" <brockwse@fssec.army.mil>
86) [102233] Re: Polarized Capacitor Question
by alan.kaul@att.net
87) [102234] Re: My Apology to EE's
by <igeq100@iupui.edu>
88) [102235] WOMC Cub Fox Log
by "Jerry McCollom WOMC" <w0mc@club-pre.org>
89) [102236] Re: My Apology to EE's
by "Ed Manuel (N5EM)" <n5em@flash.net>
90) [102237] My Apology to EE's?
by "Charles Mabbott" <crmabbott@mediaone.net>
91) [102238] Laura

- by ac5ez@webtv.net (Larry)
- 92) [102239] RE: My Apologies to EE's--You owe ALL of us an apology, Randy
by "David Ek" <ekdave@earthlink.net>
 - 93) [102240] 6 meters on the Sierra?
by MEDIC8027@aol.com
 - 94) [102241] Re: My Apology to EE's
by "Paul Harden, NA5N" <na5n@rt66.com>
 - 95) [102242] Re: My Apology to EE's
by Bruce Rattray <rattray@gpfn.sk.ca>
 - 96) [102243] Re: NN1G out of circulation
by "Mark S. Adams, P.E." <msadams@acsu.buffalo.edu>
 - 97) [102244] Re: My Apology to EE's
by "N3BJ" <qrpdx@earthlink.net>
 - 98) [102245] FOX: Foxless in VT
by John Wagner <john@neknetwork.com>
 - 99) [102246] re. Apology to EEs
by Pete Burbank <plburbank@kih.net>
 - 100) [102247] Need help locating lost E mail
by RangerSF5@aol.com
 - 101) [102248] Moderation of this list, its time
by "Steve Farthing" <stephen@stevef.demon.co.uk>
 - 102) [102249] FOX: Results after Week 2 (Hunt 4)
by "Marshall Emm" <mgemm@mtechnologies.com>
 - 103) [102250] Re: PSK-31 Computer Question....
by muglesto@ecentral.com
 - 104) [102251] RE: My Apologies to EE's--You owe ALL of us an apology, Randy
by "Phil (VA3UX)" <phil@vaxxine.com>
 - 105) [102252] Laura . . .
by John R Kirby <n3aaz-qrp@juno.com>
 - 106) [102253] Re: re. Apology to EEs
by Garie Halstead <k8kfj@ntelos.net>
 - 107) [102254] Re: re. Apology to EEs
by Jim Lowman <jmlowman@ix.netcom.com>

Date: Tue, 10 Jul 2001 19:23:32 -0400
From: "Ron Polityka" <wb3aal@fast.net>
To: ". QRP-L" <qrp-l@Lehigh.EDU>, ". NJ QRP-L" <njqrp@njqrp.org>, ". Eastern PA
QRP Club" <epaqrp-l@Lehigh.EDU>
Subject: [102148] TAC 2001 Results are in!!
Message-ID: <01b001c10997\$59f318a0\$6b135cd1@wb3aal>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Hello Everyone,

Well I kept up on the logs as they came in to the QTH.

So now I got the final results tabulated. I know there were more stations operating the contest. Please make one note, N3EPA does not count for any awards since the club sponsors the contest.

Now I can print the awards and get the plaques made for all the winners. Check www.n3epa.org .

72 & 73
Good DXing

Ron Polityka
n3epa@fast.net

vvv Eastern Pennsylvania QRP Web Page vvv
<http://www.n3epa.org>

Eastern Pennsylvania QRP Club Call
N3EPA E-mail address: n3epa@fast.net

Date: Tue, 10 Jul 2001 17:49:13 -0600
From: "James R. Duffey" <jamesd1@flash.net>
To: <qrp-1@lehigh.edu>
Subject: [102149] Re: Test Post-Don't Read
Message-ID: <B770F099.B34A%jamesd1@flash.net>
Mime-version: 1.0
Content-type: text/plain; charset="US-ASCII"
Content-transfer-encoding: 7bit

--
James R. Duffey KK6MC/5
30 Casa Loma Road
Cedar Crest, NM 87008

Date: Tue, 10 Jul 2001 20:43:50 EDT
From: N0tk@aol.com
To: hamjoel@juno.com, qrp-1@lehigh.edu

Subject: [102150] Re: ham radio unchanged
Message-ID: <9e.17024de0.287cfb46@aol.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="US-ASCII"
Content-Transfer-Encoding: 7bit

Joel

Well said in your unique Cajun style. I'm gonna play radio now.

72

Dan N0TK

Highlands Ranch,CO

Date: Tue, 10 Jul 2001 20:48:25 -0400
From: "George Osier" <gosier@twcnny.rr.com>
To: <qrp-l@lehigh.edu>
Subject: [102151] # 58YP3A !!!
Message-ID: <001301c109a3\$31d44a40\$05514342@twcnny.rr.com>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

From: "George Osier" <gosier@twcnny.rr.com>
To: "Jim" <qrp@yahoogroups.com>
Subject: #58 YP3A !!!
Date: Tuesday, July 10, 2001 8:47 PM

Hello All !!!!

Got # 58 in the mail today !!!

YP3A 700 mw ...15 meters

LOVE milliwatts !!!!

73s

George , N2JNZ / QRP p

Date: Tue, 10 Jul 2001 21:02:52 -0400
From: "Mike Yetsko" <myetsko@insydesw.com>
To: <K4YBB@aol.com>, "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>

Subject: [102152] Re: but Relevant, Panasonic laptop CF-25 HELP
Message-ID: <00e201c109a5\$99888780\$0600a8c0@dad>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

The CF-25... That's the industrial case, right?

I did the PCMCIA for that.

I had one but I gave it to my niece. I'm not sure if
the setup on that uses an <F2> combination or not.
It could be <Fn><F2> or <Alt><F2> or something.

If not, try the normal ESC and DEL things.

Mike

----- Original Message -----

From: <K4YBB@aol.com>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Sent: Friday, December 15, 2000 11:41 PM
Subject: OT: but Relevant, Panasonic laptop CF-25 HELP

> I have a Panasonic CF-25 laptop computer that should work for PSK-31,
> but
> have small problem. The computer has lost the "C" drive and no amount of
> using the drop test etc. helps in recovering the "C" drive.
>
> Seriously, does anyone know what the magic combination it to access
> the
> bios setup in this computer? I feel that someone has played with the
> computer
> b4 I got it and that they thought they were erasing the "C" drive but
> instead
> they deleted it from the basic bios setup of the computer and I have not
> been
> able too figure out the right combination to access the bios setup. Does
> anyone have a clue?
>
> All input appreciated. This is the last major hurddle between
> working or
> not working psk-31. My wife will not let me use the "good" computer for
> ham
> radio.
>

> 72 / 73 Jim K4YBB

>

>

Date: Tue, 10 Jul 2001 21:12:45 -0400
From: "Charles Mabbott" <crmabbott@mediaone.net>
To: "QRP-Post" <qrp-1@Lehigh.EDU>, "Fpqrp Groups" <fpqrp-1@mpna.com>
Subject: [102153] Tall Ship Challenge Special Event station
Message-ID: <GAECLOGOMILPLBGKKPEGIEPJCAA.crmabbott@mediaone.net>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

KB8RCO writes:
AMATEUR RADIO SPECIAL EVENT

DATE: July 21 and 22

TIME: 1400 until 1600

SUBJECT: KC8KGA - Amateur Radio Special Event

Freq: 28.370 MHz, 14.270 MHz, 7.270 MHz

QSL Info:
American Archives Amateur Radio
P.O. Box 4
Northville, MI 48167

Details:

The American Archive Amateur Radio Club will be on the air celebrating the Tall Ship Challenge visiting the Detroit / Windsor area. Schooners, Brigs, and other classic sailing vessels from the American Sail Training Association (ASTA) will be docked along Detroit and Windsor for the celebration.

We would be especially interested in hearing (on the air) Amateurs on the Great Lakes, but anyone interested in sailing / boating or in the Great Lakes Shipping Industry may find this interesting. Of course, all amateurs are encouraged to "hail us" when you hear us on or around one of the above frequencies.

submitted by:

=====

Chuck Mabbott
AA8VS
42 19' 52" N 83 28' 32" W
Grid Square EN82gh
Home Page: <http://aa8vs.dhs.org/aa8vs>
FP-113 MI-QRP#1212 Firebirds #2117

Date: Tue, 10 Jul 2001 21:20:07 -0400
From: John R Kirby <n3aaz-qrp@juno.com>
To: qrp-l@Lehigh.EDU
Subject: [102154] Aerials 101 / MMANA / REFLECTIONS II
Message-ID: <20010710.212155.-260611.1.n3aaz-qrp@juno.com>
MIME-Version: 1.0
Content-Type: text/plain
Content-Transfer-Encoding: 7bit

Excellent suggestion Chuck (AA8VS) . . . re . . .
>><http://www.electronics-tutorials.com/antennas/antenna-basics.htm><<
Thanks to Ian (VK2TIP) we can play from the 'same sheet of music'
and start with that 1/4 wave vertical (for example).

Hands on is my best experience . . .
See THE >L< NETWORK REVISITED in QRPp a few issues back
(sorry, I don't remember the exact issue,
I gave mine away, not for that article but another),
YEP !!! I did that and I know very little about antenna theory.
I know what works and what does not and that
if you only have two tools in your 'kit
one best be the MFJ 259 (or equivalent).

N O W W O W . . . (and again THANKS to qrp-l) . . .
I have MMANA *AND* REFLECTIONS II
to reinforce what little experience I do have with >L< Networks and
I tell you what, I am having a B L A S T ! ! !

I suggest first reading Appendix 11 then
follow the example in chapter 14.1 and work the math associated
with Figures, 14-1, 14-2 and 14-3 in REFLECTIONS II.

I found, too,
it is very easy to modify any existing antenna example from MMANA . . .
First, load an antenna example . . .
Click FILE, click OPEN, click the one you want.

Next, click COMPUTE
Next click WIRE EDIT
Next click the 'view that best fits
Next click the 'wire' to edit (it will turn RED)
Next RIGHT click the red wire
. . . a window will open
it is down hill from there.

PS you can 'click and 'drag that 'red' wire to change length and or
position (distance from other 'stuff.

One of the features of MMANA I like best (so far) . . .
from the GEOMETRY window
RIGHT click any WHITE area under NEXT
then click OPTIONS and SETUP.
Note, if the data result area is empty,
goto the COMPUTE window and click START.

. . . W O W ! . . .

enjoy . . .

John
N3AAZ
FM 19 xa

GET INTERNET ACCESS FROM JUNO!
Juno offers FREE or PREMIUM Internet access for less!
Join Juno today! For your FREE software, visit:
<http://dl.www.juno.com/get/tagj>.

Date: Tue, 10 Jul 2001 20:08:19 -0500
From: "Randall Jouett" <rules@bellsouth.net>
To: "Karl F. Larsen" <k5di@zianet.com>
Cc: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [102155] Re: I Have An Idea
Message-ID: <036d01c109a8\$712fd380\$6f084ed8@spock>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

----- Original Message -----
From: Karl F. Larsen <k5di@zianet.com>
To: Randall Jouett <rules@bellsouth.net>

Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Sent: Tuesday, July 10, 2001 3:15 PM
Subject: Re: I Have An Idea

Hey Karl,

```
> Randy "computer" and "DSP" are not well defined. There are several
> different kinds of DSP hardware and computer means a device that should be
> defined in detail.
```

Well, computer in this context could either be a processor built into the rig or an external device, such as the one you and I are using to write these messages to the list. To do this type of thing correctly, though, I'd think that the best way to do with would be at an IF frequency and not at audio levels. OTOH, desktop PC's and soundcards would be a good way to test this kind of stuff, and you could probably come up with a semi-decent system capable of QRPp work without too much effort. So, at this point in time, I'm using computer and DSP to equal your desktop machine and its audio card.

```
>
> > doing is using a differential sampling technique. That is, the
> > receiver would sample the frequency a few times, convert it
>   ^^^^^^^          ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^          ^^^^^^^^^^^
>
>
>
> > to digital, numeric data, and store it in a hash table where it
>   ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^          ^^^^^^^^^^^
>
>
> Randy I have marked those things I don't understand. The receiver
> will sample the frequency. I don't know how to do that. And convert it to
> digital numeric data. How do you do that? I've heard of a hash table but I
> don't know what it is.
```

The output of the rig is connected to the input of your audio card on your computer. At that point, you can write a program that samples (reads) the data and store its either in a small memory buffer on the DSP card, or you can store it via a term called direct-memory access (DMA) into the memory of your computer.

Ok. Here's a simple explanation of a hash table. Let's

assign a numerical value to each character in the alphabet. Let's say that R = 1, A = 2, N = 3, D = 4, and Y = 5 to keep things simple. Let's also say that we have 100 buckets lying in a straight row right next to each other. Now, if we add R + A + N + D + Y (Randy, as in my name), we'll come up with the numerical value of 15. Now, what you do is write RANDY on a piece of paper, go over to the 15th bucket, and drop it in there.

Now some dude that is helping you do this brings you a capital R. A little later he brings you an A, and eventually over a period of time he brings you an N, D, and Y and eventually tells you that there are no more characters. So, when you add them all together, you have R+A+N+D+Y, which adds up to the value of 15. You write down RANDY on a piece of paper, walk over to the 15th bucket, and you notice that there is already a RANDY in there. Wow. Two Randys! What to do? Well, how about we create another row of 100 buckets, and every time we get a RANDY that adds (hashes) to the value of 15, we put a small rock inside of bucket 15 of that row, and, after a certain period of time, how about we stop taking characters and count how many RANDYS we have? Maybe we could also get another person to hold up a red flag, waving it in the air every time we get a RANDY? That would be kewl, too. Also, S+T+E+V+E could come in a character at a time, we could add it their values together, and we'd come up with a value of say 22. That's a different bucket to place STEVE into, so now we can keep track on how many RANDYS and STEVES we have. As a matter of fact, with enough buckets, we could keep track of a whole lot of names.

Now, let's say that we go over to a huge concert and keep track of how many people come to the show, and we could keep track of how many Daves, Toms, Elizabeths, Sues, and whatever other names people have and let everyone know at the end of the concert that there are 153 Toms in the house :^).

Very basically, this is how a hash table works, and yes, for those in the know, I realize that this is not a complete explanation, but it's enough info for the folks here that don't know what a hash table is to get the picture of what's going on. Now, take this way of doing things

and apply it to analog-to-digital converted RF, and instead of looking at individual characters, we are looking at a tight range of frequencies. If we assign a numerical value to each byte of digitally-converted data, we can add them all together and come up with a value that can be stored at a specific location in memory (bucket) which is selected by the the sum of the data. In other words, the value is used as an index. If another signal comes along a while later and it adds up (hashes) to the same value, then we can look and see if we've already copied a signal that hashed to the bucket. If it did, or even if its within a certain range of indexes (known as a window), say from 25 to 50 for dits, and from 300 to 400 for dahs, then we can still demodulate the signal. Whew! :^)

> The database might be an english dictionary. This is a large
> collection of english words in file form.

Actually, it could be any language, or even a language that we make up :^).

> > network and training the net to copy CW, and it might also
> ^^^^^^ ^^^

Ok. I'll give you a layman explanation. It won't be complete, but it will put you in the ballpark. I Neural Network is a programming technique that emulates the human brain and is capable of learning repeatable patterns that it sees in data streams. You can program them to ignore or recognise certain patterns and react to them. For our use, we'd want to program a net (short for neural network) to recognise noise patterns and signal, and the net would only output the data that we wanted to examine.

> What data extrapolation?

Certain computer algorithms can take a set of data and guess at a particular outcome. Also, these algorithms are used in microprocessors in something known as branch prediction, and they are also used it situations where a program is going guess what happen further down the road within the program. It is also used in an area of computer science, mathematics, and physics known as Fuzzy Logic. That is, the alogorithms try to take care of "maybe," "what if," "it probably is," or "it could be" situations.

> NASA does have a lot of well developed noise reduction hardware
> that they use with deep space data that uses a computer.

I kind of figured that they did. There is no reason in the world that we can't use these techniques to increase readability of our signals on the ham bands, though :^).

73,

Randy

--

HAMateur Radio: AB5NI

Date: Tue, 10 Jul 2001 20:24:48 -0500
From: "Randall Jouett" <rules@bellsouth.net>
To: <vintage@best.com>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [102156] Re: I Have An Idea (fwd)
Message-ID: <036e01c109a8\$7cd6eb60\$6f084ed8@spock>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

----- Original Message -----
From: Robert P. Okas <vintage@best.com>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Sent: Tuesday, July 10, 2001 3:37 PM
Subject: Re: I Have An Idea (fwd)

Howdy Bob,

> Having quite a broad background in these topics, I started composing a
> message that was beginning to get quite long. There's still more to write
> and I don't have enough time at work.

>

> I will say this. Many of the things Randy mentioned have been

> attempted, and most have been successfully demonstrated. The first item,
> spectral occupancy detection has been done on a large scale platform that
> covers the range of frequencies available to us hams. This effort requires
> *only* 2500 DSPs (not a misprint!). Of course, the entire spectrum is
> being scanned continuously and other interesting things are being done
> with the information. If one scaled this back to, say a 50 KHz slice, a
> 1GHz PC might be able to do most of the processing.

That's what I was thinking. We don't need that big of a slice,
and 50 KHz at VHF (say 1296 MHz) wouldn't be all that bad.

> The downside to applying these high tech solutions is that it requires
> knowledge that most non-EE hams don't possess. This is fourth year and
> graduate level material because it requires a broad mathematics
> foundation.

Yep. As a matter of fact, I was thinking about not posting
my original message because it is way to technical. OTOH,
I believe in my fellow amateurs and realize that there are
some of us that have the math and electronics knowledge
to pull something like this off; however, it will take a dedicated
effort by numerous hams to get this to work, and I don't know
if there are enough people out there capable of helping me
do this that have the necessary knowledge to see something
like this to completion. I guess I could work on it in my spare
time, but it would probably take me around 2-3 years to get
something working decently, I'd imagine. I've never programmed
a DSP, and maybe it might be a little faster than that, though.
(Shrug.)

> A person with modest hardware experience can hook up an A/D,
> DSP, some memory and a DAC. Nowadays, of course, it's cheaper and easier
> to use a soundcard and PC. Developing the elaborate algorithms to
> accomplish the processing is real heavy lifting. As a bare minimum, C or
> C++ proficiency is a requirement, unless you like programming in x86
> assembler. =0

Yep. It would require windowing-type analysis of the of the
hash tables. You might be able to set up a finite state
machine to pull this off, too, and testing out different types
of alogrithms would most definately eat up a bunch of time.
That is, maybe some particular FFT might work well with
one algorithm and stink to the high heavens with another.
Finding this stuff out would take a LOT of experimentation.

Oh, and if I do decide to do this, the code is going to be in C, profiled x86 assembly, and in the DSP's native language, whatever that is. I'm guessing that it's assembly, though. A lot of work, and I'd most definately need some help to bring something like this to the forefront of ham radio.

Randy

--

HAMateur Radio: AB5NI

Date: 10 Jul 2001 18:30:16 -0700
From: John Farler <jfarler@peoplepc.com>
To: qrp-l@Lehigh.EDU
Subject: [102157] re:SATIRE: Has anybody here seen my old friend QRP-L?
Message-ID: <20010711013016.24531.cpmata@c002.snv.cp.net>
Content-Type: text/plain
Content-Disposition: inline
Mime-Version: 1.0

This is great....what more needs to be said?

But please don't unsubscribe...the list is very important to those of us who don't live near a qrp or technically oriented club....and to newcomers to qrp.
72,

John Farler, K4AVX

Date: Tue, 10 Jul 2001 00:28:54 -0400 (EDT) From: "Paul R. Valko" <prvalko@oakland.edu> To: QRP List <qrp-l@lehigh.edu>

With appologies to Dick Holler...

Has anybody here seen my old friend QRP-L?
Can you tell me where it's gone?
We've had a lot of bad threads
And it seems the good ones die young,
Folks unsubscribe and they're gone.

Has anybody here seen my old friend QRP-L?
Will the "Rat Shack" thread ev-er die?
Now they're on the Farnsworth,
This is not the CW-L.
Folks unsubscribe and they're gone.

etc....

PeoplePC: It's for people. And it's just smart.
<http://www.peoplepc.com>

Date: Tue, 10 Jul 2001 19:51:25 -0600
From: "Jerry McCollom" <w0mc@club-pre.org>
To: <qrp-l@lehigh.edu>
Subject: [102158] W0MC Cub Fox...
Message-ID: <002f01c109ab\$feca1a40\$baac11d8@dsl.frii.net>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Hi Folks,

I'm still a go for Cub fox in about 10 minutes.... however, a look at the radar (check it out for zipcode 80525 at weather.com or other radar sites) shows I'm going to do so by the skin of my teeth! Storms are skirting just south of the QTH and lightning is plenty far away for me to operate safely. However, Rod N0RC will keep a lightning watch for me and call me off it it comes anywhere close. If I have to QRT in the middle of the hunt, you'll know why....

BTW, I'll use RIT above my operating frequency, so call high and listen low (looks like around 14.056.4 at the moment....

CU Soon!

73,
Jerry
W0MC

Date: Tue, 10 Jul 2001 20:58:57 -0500
From: "Randall Jouett" <rules@bellsouth.net>
To: <ai2q@adelphia.net>, "'Low Power Amateur Radio Discussion'" <qrp-l@Lehigh.EDU>
Subject: [102159] Re: I Have An Idea
Message-ID: <038c01c109ad\$0cd71920\$6f084ed8@spock>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

----- Original Message -----

From: AI2Q Alex <ai2q@adelphia.net>
To: <rules@bellsouth.net>; 'Low Power Amateur Radio Discussion' <qrp-l@Lehigh.EDU>
Sent: Tuesday, July 10, 2001 1:35 PM
Subject: RE: I Have An Idea

Hello Alex,

> Although not quite the same as your idea, there's an interesting
> signal-analysis article in the latest issue of QEX (July/August) authored by
> VE7DXR, Nick Hall-Patch. He discusses his use of a PC-driven agile receiver
> that works with data collection software that he wrote. His system records
> signal strengths of BC stations, and he uses the collected long-term data to
> analyze the effects of sunrise propagation at 160 meters.

Hmmm. Sounds interesting. Maybe someone could scan the article
and e-mail it my way?

> You might also want to look into the published work of KA9Q, Phil Karn. I
> believe he wrote some DSP code--for the first T.I TMS320 processors--that
> dug out slow-speed CW from beneath the noise. I recall him mentioning that
> NASA was impressed with his work when he demonstrated recovery of data from
> one of the early solar or Venus probes.

Phil is one sharp cookie. I've never had the opportunity to sit
down and talk with him. Does anyone know if he ever attends
the Dayton Hamvention? A couple of local friends have invited
me to go there in 2002, and if I have the time I'm going to take
them up on it and see if I can meet up with him and a few of
my friends that attend regularly. Anywho, thanks for the info,
and I'll see if I can locate his work on the web later tonight.

> My own personal feeling is that the subject you suggest would be of benefit
> *if* the e-mail participants explained the algorithms in language that any
> ham on QRP-L could understand. Similarly, if any participants in your
> suggested QRP-L thread could share how they go about coding those

> algorithms, in a way that the rest of us can comprehend without being
> C-language codersmiths, that would be of great value in understanding the
> mind of a programmer and the techniques that are used.

Well, Karl asked about this, and I tried to give him a layman explanation. Don't know if I succeeded or not. Hopefully, he'll let me know if he missed something and I can reword the message or something, or maybe somebody else here can add some stuff to my original posting for clarification. (Shrug.)

> By the way, I'm an avid CW op. As such, I've always looked on with interest
> at various hw/software approaches to copying CW, and can't see why anyone
> would want to machine-process make-break keying.

For weak signal work.

> There are so many far superior ways of sending data by radio. Also,
> has anyone seen any software yet that can copy make-break CW as
> effectively as a skilled human in the face of weak signals, QRM, static
> crashes, and noise?

Not yet, but you can take it to the bank that it will eventually happen. Well, we can hope that it happens. Let's also hope that a ham does this and makes the FCC and the league proud of him, too! :^)

> Personally, I'd likely be most interested in the hardware side of such a
> project. Would a PC's 16-bit soundcard A/D provide enough bits of resolution
> for your processing concept?

Yes, and especially if you use it in conjunction with a quick computer.

> What are some other limiting factors of processing the actual
> noise? Is there sufficient CPU "horsepower" in a fast
> Pentium box to do all the post-DSP processing? Is TAPR
> or AMSAT already doing anything along the line of what you suggest?

Well, I'm don't know :^). OTOH, I am willing to find out. Even if these other people are doing this and have succeeded, it still is a good mental exercise. Gotta keep those neurons cranking, ya' know :^).

Randy

--

HAMateur Radio: AB5NI

Date: Tue, 10 Jul 2001 21:06:50 -0500
From: "Randall Jouett" <rules@bellsouth.net>
To: "Mike Yetsko" <myetsko@insydesw.com>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [102160] Re: I Have An Idea
Message-ID: <03ac01c109ae\$27887ba0\$6f084ed8@spock>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

----- Original Message -----
From: Mike Yetsko <myetsko@insydesw.com>
To: <rules@bellsouth.net>; Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Sent: Tuesday, July 10, 2001 1:55 PM
Subject: Re: I Have An Idea

Hey Mike,

> I've read somewhere that by using DSP techniques, they've been
> able to pull signals out reliable as low as 16db BELOW the
> noise by some algorithm that looks for aberations in the noise.

This is exactly what I'm talking about, Mike. Do you know if these people working on this are going to bring it to the masses on the ham bands?

Randy

--

HAMateur Radio: AB5NI

Date: Tue, 10 Jul 2001 21:20:33 -0500
From: "Randall Jouett" <rules@bellsouth.net>
To: "Robert Clark" <res03db2@gte.net>
Cc: <qrp-1@Lehigh.EDU>, <fpqrp-1@mpna.com>
Subject: [102161] Re: [fpqrp] I Have An Idea
Message-ID: <03c601c109b0\$11434580\$6f084ed8@spock>
MIME-Version: 1.0

Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

----- Original Message -----

From: Robert Clark <res03db2@gte.net>
To: Randall Jouett <rules@bellsouth.net>
Cc: <qrp-1@Lehigh.EDU>; <fpqrp-1@mpna.com>
Sent: Tuesday, July 10, 2001 2:26 PM
Subject: Re: [fpqrp] I Have An Idea

Hey Robert,

> How much of receiver design is built around producing
> audio that a person can listen to?

Well, if you want to get technical about this, all of
it :^). If you want to just consider the audio amp,
not a large portion :^). Most of the real work is
done in the IF. This is probably the best place
to insert a DSP to do something like this, too.

> I'd like to see a radio that I could connect to with
> spdif over fiber.

What is spdif?

> With QRP gear getting smaller and lighter all the time,
> it would be fun to build a setup that could be operated
> on a tethered helium balloon. Maybe a center fed
> dipole with the radio remotely triggered?

Yep. It's coming! I'd imagine that we'll soon have
hams launching balloons that contain telemetry
setups that don't cost an arm and a leg, too.

Randy

--

HAMateur Radio: AB5NI

Date: Tue, 10 Jul 2001 21:18:15 -0500

From: Todd Enders <enders@bolshoi.cc.misu.nodak.edu>
To: "Low Power Amateur Radio Discussion" <qrp-1@lehigh.edu>
Subject: [102162] FOX - One Down...
Message-ID: <200107110218.AA01034@bolshoi.cc.misu.nodak.edu>
Content-Type: text/plain
Mime-Version: 1.0 (NeXT Mail 4.2mach_patches v148.2)

Well, KB9YIG was easy enough. Two shots and he was mine
with the 300 mW homebrew TX. :-)

Unfortunately, can't hear W0MC at all here. Hoping the band shifts
accordingly later. :-)

72/73,

Todd, AG0T

Date: Tue, 10 Jul 2001 21:29:00 -0500
From: Wayne Williams <aa5jj@swbell.net>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [102163] w0mc foxii
Message-ID: <3B4BB9EC.A4413DB6@swbell.net>
MIME-version: 1.0
Content-type: text/plain; charset=us-ascii
Content-transfer-encoding: 7bit

IS anyone hearing Jerry nothing here in Oklahoma

Wayne
AA5JJ

Date: Tue, 10 Jul 2001 19:33:09 -0700
From: KB7WW Art Moe <kb7ww@uswest.net>
To: enders@bolshoi.cc.misu.nodak.edu
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [102164] Re: FOX - One Down...
Message-ID: <3B4BBAE5.4C441C13@uswest.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

W0MC is 1db above mental telepathy here.

Art
KB7WW
Oregon

Todd Enders wrote:

>
> Well, KB9YIG was easy enough. Two shots and he was mine
> with the 300 mW homebrew TX. :-)
>
> Unfortunately, can't hear W0MC at all here. Hoping the band shifts
> accordingly later. :-)
>
> 72/73,
>
> Todd, AG0T

Date: Tue, 10 Jul 2001 21:39:15 -0500
From: Wayne Williams <aa5jj@swbell.net>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [102165] Re: W0MC Cub Fox...
Message-ID: <3B4BBC53.991CEDB6@swbell.net>
MIME-version: 1.0
Content-type: text/plain; charset=us-ascii
Content-transfer-encoding: 7bit

Got him on 14.055.17 from Muskogee, OK.
at 02:35

Jerry McCollom wrote:

>
> Hi Folks,
>
> I'm still a go for Cub fox in about 10 minutes.... however, a look at the
> radar (check it out for zipcode 80525 at weather.com or other radar sites)
> shows I'm going to do so by the skin of my teeth! Storms are skirting just
> south of the QTH and lightning is plenty far away for me to operate safely.
> However, Rod N0RC will keep a lightning watch for me and call me off it it
> comes anywhere close. If I have to QRT in the middle of the hunt, you'll
> know why....
>
> BTW, I'll use RIT above my operating frequency, so call high and listen low
> (looks like around 14.056.4 at the moment....
>

> CU Soon!
>
> 73,
> Jerry
> WOMC

Date: Tue, 10 Jul 2001 20:43:18 -0600
From: "Jerry McCollom" <w0mc@club-pre.org>
To: <QRP-L@LEHIGH.EDU>
Subject: [102166] WOMC CUB FOX QRT DUE TO WX
Message-ID: <005b01c109b3\$3e853dc0\$baac11d8@dsl.frii.net>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Hi Folks,

Sorry, but I had to QRT because of lightning. The static crashes were getting loud and Rod N0RC advised nearby lightning. My last QSO was at 02:40 with WA7SPY. Sorry I had to bail, but I'd rather stay safe. If it clears off, I'll be back on.... severe weather net has started for South part of county, so this is probably best decision.

Will post log if I don't get back on.

Thanks for the abbreviated hunt!

72,
Jerry
WOMC

Date: Tue, 10 Jul 2001 21:46:28 -0500
From: "George, W5YR" <w5yr@att.net>
To: aa5jj@swbell.net
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [102167] Re: w0mc foxii
Message-ID: <3B4BBE04.D4681110@att.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Worked Jerry W0MC with a very weak signal here in North Texas at 0237 after some repeats. He gave me 339 and I gave him 559 although it was closer to 219 at times.

Shame so many guys who clearly cannot hear him keep calling just about right on his frequency. I worked him up about 400 Hz or so.

Tony was a piece of cake! - Huge signal here. I managed to be first in his log this time.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6

Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 55th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

Wayne Williams wrote:

>
> IS anyone hearing Jerry nothing here in Oklahoma
>
> Wayne
> AA5JJ

Date: Tue, 10 Jul 2001 20:49:02 -0600
From: "Jerry McCollom" <w0mc@club-pre.org>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [102168] Re: W0MC CUB FOX QRT DUE TO WX
Message-ID: <008a01c109b4\$0b971ae0\$baac11d8@dsl.frii.net>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Whoa.... I stepped outside and shudder in fear that I was still operating!!!
We're on the edge of the severe storm, but it's still bad enough I'm going
to stay off the air for now... (gotta move the station out of the basement
where I can see this stuff :-)

73,

Jerry
W)MC

Date: Tue, 10 Jul 2001 21:48:54 -0500
From: "George, W5YR" <w5yr@att.net>
To: w0mc@club-pre.org
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [102169] Re: W0MC CUB FOX QRT DUE TO WX
Message-ID: <3B4BBE96.70B36C96@att.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Thank you Jerry for picking me out of the mess. You were a good S5 at times and then right back into the noise.

Looks like I just got in under the wire at 0237!

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6

Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 55th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

Jerry McCollom wrote:

>
> Hi Folks,
>
> Sorry, but I had to QRT because of lightning. The static crashes were
> getting loud and Rod N0RC advised nearby lightning. My last QSO was at
> 02:40 with WA7SPY. Sorry I had to bail, but I'd rather stay safe. If it
> clears off, I'll be back on.... severe weather net has started for South
> part of county, so this is probably best decision.
>
> Will post log if I don't get back on.

Date: Tue, 10 Jul 2001 22:02:19 -0500
From: "Brian Murrey" <bmmurrey@amexol.net>
To: "pigs" <fpqrp-l@mpna.com>, "QRP-L" <qrp-l@lehigh.edu>
Subject: [102170] I am STOKED!!!
Message-ID: <00b901c109b5\$f9997980\$87382bd1@iquest.net>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"

Content-Transfer-Encoding: 7bit

Man what a great night!! I built a Tuna Tin 2 transmitter, from scratch, as in dead bug and manhattan hybrid last week. With some guidance from my Flying Pig buddy Mikey (WB8ICN) we determined that I don't know enough about wiring up jacks and switches. So on Sunday night I redid the switches and jacks and made it work the way it was supposed to work. Looks like I have about 250 mW out of the dude.

Mine is not built in a can. I built mine with stuff I got at Dayton and NJQRP kit that Flying Pig Rob (KC8NYW) gave me a few months ago. I still have the round circuit board and may just rekit the thing and give to a newbie. I put mine in a little Radio Shack plastic box and mounted it on a scrap of copper clad I had left over from something else. I think I may redo the thing and put it in the ever popular Altoids tin though.

ANYWAY...tonight on 7041 I worked Roy AA0B in Columbia MO and he was on his K1. I gave him a 449 and gladly accepted my 229. So I only need 49 more states to catch up with Steve (Hahahahaha).

Gosh I love this QRP stuff. OH YEAH...the receiver was my Norcal 40A and it was all running on solar charged SLA's! Totally cool.

73

```
=====
KB9BVN NORCAL 2792 FISTS 5695 QRP-L 1540 QRP-ARCI 10223
  39.558 N   86.095 W   Johnson Co., Indiana
  GRID: EM69WN - Ten Tec Scout - Attic Dipole - 5w
  Member of the American Radio Relay League - SOC #400
  FISTS Century Club #764/#24 QRP - Flying PIG QRP #-57
=====
```

```
-----

Date: Tue, 10 Jul 2001 22:10:49 -0500
From: "Randall Jouett" <rules@bellsouth.net>
To: <marsgal42@hotmail.com>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [102171] Re: I Have An Idea
Message-ID: <03ce01c109b7$17708600$6f084ed8@spock>
MIME-Version: 1.0
Content-Type: text/plain;
  charset="iso-8859-1"
```

Content-Transfer-Encoding: 7bit

----- Original Message -----

From: laura halliday <marsgal42@hotmail.com>
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Sent: Tuesday, July 10, 2001 3:24 PM
Subject: Re: I Have An Idea

Hey Laura,

> You can use DSP in lots of different ways, like the
> ultra-slow-speed CW done by folks like G3PLX. By
> using a bandwidth of a few mHz you can reach way
> down in to the noise. You also can't send very fast. :-)

Yep. That's one of the problems, along with doppler shift, etc. OTOH, this tactic might work semi-decently at VHF and UHF because of the availability of spectrum. Not only that, there are a lot of frequencies that we are using very much up there.

> There are better ways of achieving redundancy in
> transmitted data than using a dictionary. The utterly
> fascinating field of coding theory (no pun intended)
> is based on such notions.

Well, I was brainstorming, Laura. If there are better ideas out there, then I'll eventually find them. Just because I didn't mention them in my original posting, that does not mean that I can't figure this stuff out any better or worse than you can. What do we have to do? Look up anything and everything about the subject, spend 3 days writing a message, and have zero flaws in our posts to make you happy? Don't count on it, and I'd really appreciate it if you would stop this crap to one-up everyone on QRP-L! This is NOT a fricking technical meeting where we are being paid for our information. BTW, you are one of the main reasons why I don't like posting this type of message to QRP-L.

> Oh, BTW: a PC sound card can record all there is to
> record from a communications-grade voice channel.
> Hams should know this - it's 2001, after all, and
> this is pretty fundamental stuff.

Ummm. Excuse me, but I think I know computer science WAY better than you do -- and THEN SOME! Oh, and my MS degrees in Physics and Computer Science and my minors in Music, English, and Math make your pitiful EE degree look like a piece of 4th-grade homework. Now, let's see you be creative and post a message about something that might be new! Maybe my idea isn't new, but at least I thought the damn thing up on my own, and I have a good idea how to solve the problems.

> A Pentium 233 MMX (now a doorstop) has more MIPS and
> more megaFLOPS than most available DSP chips.

Duh. No kidding, but a DSP is an easy, accepted way to get the data into the system, and most hams could pull this off with the latest, greatest equipment. Also, you could use a DSP to do a certain level of pre-processing. Why didn't you mention this, Laura? Hmmm.

> This isn't a flame; far from it. But please don't
> expect people to get excited over re-inventing the
> wheel.

I never said that it was unique, and I figured that the folks at NASA and JPL used this demodulation technique before. OTOH, this tactic should be useable with our current level of technology and with the systems that we have on our desktops. Moreover, I'm only thinking about doing this stuff at audio frequencies for the time being and while I learn. I'm leaning toward doing this in an IF where it will really shine.

Oh, and just because you say that your message isn't a flame, Laura, that doesn't mean that is the way people are going to take it. Your "please don't expect people to get excited over re-inventing the wheel" remark was totally and completely uncalled for. You did this to take a jab at me, and we both know it. All you know how to do is find perceived flaws in peoples postings and trash them for it instead of helping them in a kind, decent manner. I don't even think you are capable

of being creative and trying to post an original message.
I can't even remember seeing you start a thread. All you
do is sit back and wait to tell the folks on QRP-L that
their logic and reasoning is flawed. This might be
true, but you could at least use some tact when you
do this!

Well, I'm tired of this crap, and this is absolutely
my last posting to this list. I will post remarks to
messages I see on the list, though, in private
e-mail.

It wasn't fun!

Randy

--

HAMateur Radio: AB5NI

P.S.

I'll be on the flying-pigs list if anyone wants to talk to
me there.

Date: Tue, 10 Jul 2001 22:08:44 -0500
From: Wayne Williams <aa5jj@swbell.net>
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [102172] test MESSAGE
Message-ID: <3B4BC33C.8C9369BB@swbell.net>
MIME-version: 1.0
Content-type: text/plain; charset=us-ascii
Content-transfer-encoding: 7bit

God Loves all.....

Date: Tue, 10 Jul 2001 22:16:28 -0500
From: Wayne Williams <aa5jj@swbell.net>
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [102173] having trouble posting ???
Message-ID: <3B4BC50C.679A38E3@swbell.net>
MIME-version: 1.0

Content-type: text/plain; charset=us-ascii
Content-transfer-encoding: 7bit

Hello i am having trouble posting hope this hits the list...

Date: Tue, 10 Jul 2001 20:33:04 -0700
From: Robert Clark <res03db2@gte.net>
To: Randall Jouett <rules@bellsouth.net>
Cc: Robert Clark <res03db2@gte.net>, qrp-1@Lehigh.EDU, fpqrp-1@mpna.com
Subject: [102174] Re: [fpqrp] I Have An Idea
Message-ID: <20010710203304.A23868@darkstar.gte.net>
Mime-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Disposition: inline

On Tue, Jul 10, 2001 at 09:20:33PM -0500, Randall Jouett wrote:

>
> ----- Original Message -----
> From: Robert Clark <res03db2@gte.net>
> To: Randall Jouett <rules@bellsouth.net>
> Cc: <qrp-1@Lehigh.EDU>; <fpqrp-1@mpna.com>
> Sent: Tuesday, July 10, 2001 2:26 PM
> Subject: Re: [fpqrp] I Have An Idea
>
>
> Hey Robert,
>
> > How much of reciever design is built around producing
> > audio that a person can listen to?
>
> Well, if you want to get technical about this, all of
> it :^). If you want to just consider the audio amp,
> not a large portion :^). Most of the real work is
> done in the IF. This is probably the best place
> to insert a DSP to do something like this, too.

When I was young, I had a cheap telescope. At that point, I thought the magnification power was the most important part. Later I learned that a large mirror picks up more light, and allows an easier view of faint objects. Fewer lenses also means less distortion.

Each stage in a reciever adds noise, lowers the Q, etc.(?)

A reciever that had a wide IF, and only a few *low noise* stages, would perform better than we'd know what to do

with. (?)

Much of the junk we put on a receiver to make it comfortable for us, would be unnecessary as well. (?) ALC, noise blanker, that kind of stuff.(?)

As long as the signal going into the DAC isn't too hot, the software can deal with amplitude variations after the fact.

My reason for bringing up spdif is that if the data comes in a digital format from the radio to the computer, then it could be put through several passes of whatever algorithm people wanted to use.

>
> > I'd like to see a radio that I could connect to with
> > spdif over fiber.
>
> What is spdif?

Sorry, that should've been S/PDIF or S/P-DIF. Sony/Panasonic Digital InterFace. Its a variable data rate stereo audio format. (In english, its a format used to ship DAT or CD audio around.)

My thought was that if there was a suitable low noise DAC out there, then it could sample the IF, and ship that over to the soundcard via fibre. (I spend quite a bit of time around fiber. It doesn't couple RFI, offers a high degree of electrical isolation, is getting cheaper, etc.)

SPDIF is a red herring though. Not much use in a stereo signalling standard for monaural audio.

>
> > With QRP gear getting smaller and lighter all the time,
> > it would be fun to build a setup that could be operated
> > on a tethered helium balloon. Maybe a center fed
> > dipole with the radio remotely triggered?
>
> Yep. It's coming! I'd imagine that we'll soon have
> hams launching balloons that contain telemetry
> setups that don't cost an arm and a leg, too.
>
> Randy
> --
> HAMateur Radio: AB5NI
>

>
>

If you could make radios like this simple and cheap enough to build, it could be nice to run a pair of three of them, each to its own antenna. Then the software could turn the differences into direction and distance audio clues.

Date: Tue, 10 Jul 2001 23:34:08 -0400
From: "David Porter" <aa3ur@home.com>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [102175] Cub Foxii tonight
Message-ID: <00cd01c109ba\$58488800\$927ba8c0@jamison1.pa.home.com>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Gee, I listened and listened. All I could hear was WOMC, but he couldn't hear me. I got to wondering if I was getting out at all until LZ2RS came back to me. I was at 2W and he was at 5W. He even lowered his power to 2 W, but he started blending in to the noise.

Not a fox, but I'm happy. :-)

I can hardly wait ''til MY turn next week!

David Porter
aa3ur@home.com
AA3UR

Date: Tue, 10 Jul 2001 22:47:16 -0500
From: "Mike Mullins" <mmullins@mastnet.net>
To: "QRP-L post message" <qrp-l@lehigh.edu>
Subject: [102176] RE: I have an idea
Message-ID: <000f01c109bc\$aa754bc0\$4b8ebbd0@downstairs>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Randy (AB5NI) wrote:

>Basically, I've been thinking about using a computer and DSP to detect weak

signals.

I'm no expert on this either, but there is one technique in common use for various kinds of analytical equipment (for example, magnetic resonance imaging - MRI and other types of spectroscopy) which relates to this problem. A weak signal is digitized over one (or more) complete cycles. This is repeated several times. The coherent signal adds linearly, but since the noise is random, it adds only as the square root of the number of additions. Once the desired signal to noise is achieved, the signal is then extracted with an inverse Fourier transform. Of course, this depends on knowing the phase of the incoming signal. Basically this method improves signal to noise at the expense of acquisition time (or data rate). I don't know how to do this for a signal with unknown frequency and phase, but my guess is that it is not only possible, but someone has written an algorithm for a DSP processor already. Coherent CW doesn't work exactly like this, but the same principals are involved.

73 de Mike KD5CMN

Date: Tue, 10 Jul 2001 21:08:18 -0700
From: Robert Clark <res03db2@gte.net>
To: Randall Jouett <rules@bellsouth.net>
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [102177] Re: I Have An Idea (fwd)
Message-ID: <20010710210818.D23868@darkstar.gte.net>
Mime-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Disposition: inline

Hi Randy & Bob,

On Tue, Jul 10, 2001 at 08:24:48PM -0500, Randall Jouett wrote:

>

> ----- Original Message -----

> From: Robert P. Okas <vintage@best.com>

> To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>

> Sent: Tuesday, July 10, 2001 3:37 PM

> Subject: Re: I Have An Idea (fwd)

>

>

>

> Howdy Bob,

>

>
> > Having quite a broad background in these topics, I started composing a
> > message that was beginning to get quite long. There's still more to write
> > and I don't have enough time at work.
> >
> > I will say this. Many of the things Randy mentioned have been
> > attempted, and most have been successfully demonstrated. The first item,
> > spectral occupancy detection has been done on a large scale platform that
> > covers the range of frequencies available to us hams. This effort requires
> > *only* 2500 DSPs (not a misprintf!). Of course, the entire spectrum is
> > being scanned continuously and other interesting things are being done
> > with the information. If one scaled this back to, say a 50 KHz slice, a
> > 1GHz PC might be able to do most of the processing.
>
> That's what I was thinking. We don't need that big of a slice,
> and 50 KHz at VHF (say 1296 MHz) wouldn't be all that bad.
>

If the radios were modular, you could work for symmetry between the DSP/DAC,
the (low power) processor used, and the analog circuitry.

> > The downside to applying these high tech solutions is that it requires
> > knowledge that most non-EE hams don't possess. This is fourth year and
> > graduate level material because it requires a broad mathematics
> > foundation.
>
>
> Yep. As a matter of fact, I was thinking about not posting
> my original message because it is way to technical. OTOH,
> I believe in my fellow amateurs and realize that there are
> some of us that have the math and electronics knowledge
> to pull something like this off; however, it will take a dedicated
> effort by numerous hams to get this to work, and I don't know
> if there are enough people out there capable of helping me
> do this that have the necessary knowledge to see something
> like this to completion. I guess I could work on it in my spare
> time, but it would probably take me around 2-3 years to get
> something working decently, I'd imagine. I've never programmed
> a DSP, and maybe it might be a little faster than that, though.
> (Shrug.)
>

Technical, ewww, yuck. If you can't contest with it why bother? <sarcasm>

>
> > A person with modest hardware experience can hook up an A/D,
> > DSP, some memory and a DAC. Nowadays, of course, it's cheaper and easier
> > to use a soundcard and PC. Developing the elaborate algorithms to

> > accomplish the processing is real heavy lifting. As a bare minimum, C or
> > C++ proficiency is a requirement, unless you like programming in x86
> > assembler. =0
>
>
> Yep. It would require windowing-type analysis of the of the
> hash tables. You might be able to set up a finite state
> machine to pull this off, too, and testing out different types
> of alogrithms would most definately eat up a bunch of time.
> That is, maybe some particular FFT might work well with
> one algorithm and stink to the high heavens with another.
> Finding this stuff out would take a LOT of experimentation.
>
>
> Oh, and if I do decide to do this, the code is going to be
> in C, profiled x86 assembly, and in the DSP's native
> language, whatever that is. I'm guessing that it's assembly,
> though. A lot of work, and I'd most definately need some
> help to bring something like this to the forefront of ham
> radio.

All the more reason to stay software based?

>
> Randy
> --
> HAMateur Radio: AB5NI
>
>
>

[RC]

Date: Tue, 10 Jul 2001 22:11:07 -0600
From: "Rod Cerkoney, N0RC" <rod@n0rc.com>
To: "Elecraft-list" <elecraft@qth.net>, "Low Power Amateur Radio Discussion" <qrp-
l@Lehigh.EDU>, <ncarc@qth.net>
Subject: [102178] Why "Piedmont" Radio Electronics Club?
Message-ID: <035001c109bf\$83179990\$6401a8c0@c919125b>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

A common question I get....

"Piedmont" is taken from "Roadside Geology of Colorado"; Mountain Press Publishing, Co; Missoula, MT; 1980. "Piedmont" is the geological name for this area of Colorado.

DEF: piedmont, lying or formed at the base of mountains.

The Colorado Piedmont is a large area separating the mountains from the high plains. It is a large erosion area formed by the South Platte and Poudre Rivers....

(Any body remember Piedmont Airlines? Or am I just getting that old?)

73, Rod N0RC <http://www.club-pre.com>
Ft Collins, CO

SuperFest 2001 14-Jul-2001
<http://www.qsl.net/n0rc/hamfest/hamfest.html>
BE THERE!

Date: Tue, 10 Jul 2001 23:20:51 -0500
From: "Tony Parks" <robert.parks11@gte.net>
To: <qrp-1@Lehigh.EDU>
Subject: [102179] KB9YIG cub fox
Message-ID: <000901c109c0\$e1474640\$8b85113f@3dse0>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Thanks everyone for patience with a first time cub fox. I was kind of rattled at first and hope I did not miss anyone. I have to go out of town early tomorrow so I will post my log on Saturday.

72,
Tony
KB9YIG

Date: Tue, 10 Jul 2001 23:20:33 -0500
From: "George, W5YR" <w5yr@att.net>

To: mmullins@mastnet.net
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [102180] Re: I have an idea
Message-ID: <3B4BD411.40BACFE9@att.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

FWIW, some 40 years ago we were extracting underground nuclear explosion data from earthquake recordings using far more sophisticated techniques, and doing so even with the limited computers available back then.

The detection of optimally coded and sub-optimally coded signals in various noise-contaminated environments is a relatively old branch of information theory and processing. It is mind boggling what can be done with the computing power we have available these days!

Perhaps now that such power is readily and economically available, some of these techniques can be more readily applied to amateur radio communication with its unique characteristics.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6

Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 55th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

Mike Mullins wrote:

>
> Randy (AB5NI) wrote:
> > Basically, I've been thinking about using a computer and DSP to detect weak
> signals.
>
> I'm no expert on this either, but there is one technique in common use for
> various kinds of analytical equipment (for example, magnetic resonance
> imaging - MRI and other types of spectroscopy) which relates to this
> problem. A weak signal is digitized over one (or more) complete cycles.
> This is repeated several times. The coherent signal adds linearly, but
> since the noise is random, it adds only as the square root of the number of
> additions. Once the desired signal to noise is achieved, the signal is then
> extracted with an inverse Fourier transform. Of course, this depends on
> knowing the phase of the incoming signal. Basically this method improves
> signal to noise at the expense of acquisition time (or data rate). I don't
> know how to do this for a signal with unknown frequency and phase, but my
> guess is that it is not only possible, but someone has written an algorithm
> for a DSP processor already. Coherent CW doesn't work exactly like this,
> but the same principals are involved.

Date: Wed, 11 Jul 2001 00:41:37 -0400
From: Kenneth Hoglund <hoglund@wfu.edu>
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [102181] RE: Why "Piedmont" Radio Electronics Club?
Message-ID: <3B4BD900.40004474@wfu.edu>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Ok Rod---

All Eastcoasters know the "real" piedmont is here in the Carolinas, at the foot of the Blue Ridge Mtns.. And as for Piedmont Airlines, they were founded right here in Winston-Salem, NC by the Davis brothers. Had one of their granddaughters in class some years back.

So, I guess I can join the "Piedmont Radio Electronics Club? Or are you guys coming out here for meetings?

Smiling,

Ken KG4FGC

Date: Wed, 11 Jul 2001 00:43:26 EDT
From: ARDUJENSKI@aol.com
To: qrp-l@lehigh.edu
Subject: [102182] Antenna nights
Message-ID: <71.f8b4a16.287d336e@aol.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="US-ASCII"
Content-Transfer-Encoding: 7bit

Just a passing thought. To give folks a little exposure to various types of basic antenna performance maybe having monthly an ANTENNA NIGHT or ANTENNA WEEKEND where 1/4 verticals, SLVs, dipoles at 25ft, DCTLs, or even indoor antenna night/weekend would be specified for that timeframe.

Folks get exposed to various types and get to compare performances.

Alan KB7MBI

Date: Wed, 11 Jul 2001 00:48:02 -0400
From: Kenneth Hoglund <hoglund@wfu.edu>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [102183] New Art & Skill
Message-ID: <3B4BDA82.D6C170F5@wfu.edu>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Sometime ago someone posted to the list the on-line work "Art and Skill of Radio-Telegraphy." Well, just saw on e-Ham that a new 3rd edition has been released to the web. Check it out at <http://www.qsl.net/n9bor/n0hff.htm>

All standard disclaimers: just found the 2nd edition very helpful in my own development with cw.

73
Ken KG4FGC

Date: Tue, 10 Jul 2001 22:07:33 -0700
From: "Bob Tellefsen" <n6wg@earthlink.net>
To: <qrp-1@Lehigh.EDU>
Subject: [102184] Fox--Thursday night Twofer Event
Message-ID: <MABBJOEABOILMKCJCLFCCEOJCIAA.n6wg@earthlink.net>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

That's right, Ladies and Gentlemen, you heard me correctly. This Thursday evening local time, commencing at 0200 UTC (Friday AM UTC), there will be two fine upstanding Foxii for you dedicated Hunters to pursue.

Hiding in the Northwest of the U S of A will be Ben, NW7DX, a most skilled operator and past Hunter. He will be eagerly looking for Hunters looking for him. He reports that he will be operating below 14060.

>From the sunny shores of San Francisco Bay, Bob, N6WG, will sing his famous song, CQ FOX. Bob is a past Hunter of many seasons, and a past Fox also. Bob will hold forth above 14060 "somewhere".

There you have it, Ladies and Gentlemen. For the modest investment of a few "minutes" of your valuable time, you have the opportunity to acquire two,

yes two,
shiny new pelts.

Don't forget, Thursday evening local time, 0200 UTC. Don't miss this important twofer event.

73, Bob N6WG/Ben NW7DX

Date: Tue, 10 Jul 2001 22:28:23 -0700
From: "N7SG K7FD" <k7fd@hotmail.com>
To: qrp-l@Lehigh.EDU
Cc: elecrafft@qth.net
Subject: [102185] NW DX Convention: any QRP'ers?
Message-ID: <F170uutSgc0rBLSAQV600003e4e@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

In Everett, Washington July 20-22 is the Northwest DX Convention. Wonder if anyone on this list plans to attend? I know Ben NW7DX, Annette N7SG, and yours truly will be there, any others?

K7FD/P will be active from the Everett Holiday Inn, K2 and MP-1. This could change to the K1 and MP-1...especially if the K1 battery option finds its way to my mailbox soon.

73 John K7FD, K2/586 K1/78/with dial lights...
Convention info: <http://www.wwdxc.org/convention/>

Get your FREE download of MSN Explorer at <http://explorer.msn.com>

Date: Wed, 11 Jul 2001 07:16:08 -0400
From: Bill Meara <n2cqr@clix.pt>
To: qrp-l@lehigh.edu
Cc: homebrew@qth.net
Subject: [102186] 17mtr DSB: RX news. Need AF amp advice.
Message-ID: <3.0.6.16.20010711071608.2e8f0c28@pop.clix.pt>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

I've been having so much fun with the 17 meter DSB transmitter that I've been delayed in building the receiver. Let me give you an example of the

17 meter fun: On 5 July at around 0600 UTC I called CQ on 17 meters. With a regulated 13.8 volt supply the rig is putting out around 5 watts PEP (that's DSB, so there is a lot of energy in the other sideband and some in the not fully suppressed carrier). VK1MJ came back. Mike gave me a 52, but I was very pleased. This was the second time in a month that he'd answered my CQ. When I finished with Mike, I called CQ again on the same freq and was answered by KH8/N50LS in American Samoa. I was 55. Don and I had a nice ragchew about island life (Atlantic and Pacific). My theory is that the radio gods smile on homebrewers.

So you can see why I've been neglecting the soldering iron. Fortunately conditions deteriorated a bit during the last week or so -- this allowed me to build a couple of stages on the DC receiver that will accompany the TX. First I built the four diode mixer. I used the same kind of small signal diodes that worked well in the TX's balanced modulator. Doug DeMaw's circuit called for the use of FT-37-43 cores for the transformers, but I'd found that core to be a bit small for my fingers, so I used FT-50-43 cores (same material, just larger diameter). I quickly connected the TX VXO and tests indicated that the thing was in fact mixing.

Next I built a grounded gate JFET (MPF-102) RF amp with tuned circuits at the input and output. Toroids and trimmer caps. Manhattan building techniques seemed to help a lot in keeping this Amp from oscillating. Soon I had the amp connected to the mixer. From the junkbox I found an LM386 AF amp circuit that I'd built for an earlier project. That went to the mixer output. Now I had a receiver.

I think it is really cool when you first coax a signal out of a new RX. Last night I was peaking the trimmer caps on the RF amp when all of a sudden I heard some very faint SSB chatter. I tuned the VXO, tweaked the caps a bit more and there it was, the unmistakable accent of a G station. I went to be a happy HBer.

Now I have to build a real AF amp for this RX. I'm tired of the standard LM386 or 741 op amp circuits. Isn't there something out there that is 1) simple 2) uses discrete components and 3) can drive a speaker? Any suggestions?

73 de CU2JL (aka N2CQR)
Bill Meara
Sao Miguel Island,
The Azores, Portugal
<http://planeta.clix.pt/n2cqr>

Date: Wed, 11 Jul 2001 19:10:42 +1000

From: "Graeme Zimmer" <gzimmer@optushome.com.au>
To: <rules@bellsouth.net>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [102187] Re: I Have An Idea
Message-ID: <00c601c109e9\$5c725030\$7e86a4cb@co3043446a>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Randy,

> Basically, I've been thinking about using a computer
> and DSP to detect weak signals.

You definitely should go read all the exciting things that the
Narrow-band and DSP guru's have been doing

See <http://www.qsl.net/vk2zto/>
<http://www.computerpro.com/~lyle/weaksigs/weaksigs.htm>
<http://www.computerpro.com/~lyle/wolf/wolf4dummies.htm>
<http://www.qsl.net/z11bpu/>

There are of course many others.

I have a bunch of DSP references at
<http://members.optushome.com.au/gzimmer/links.html>

Best Regards Zim VK3GJZ

Date: Wed, 11 Jul 2001 06:45:33 -0400
From: "Tom Bowman" <tbowman@nbn.net>
To: "QRP-L" <qrp-1@lehigh.edu>
Subject: [102188] Receiver questions/ LM386
Message-ID: <012d01c109f6\$9cdb3120\$6cb0473f@tombowma>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

I was doing some work on the old 40-9er this past week and comparing the
circuit to
the Neophyte and others.
This brought up a few questions:

- What is the advantage of using a balanced input for the LM386 amp in the circuits like the Neophyte and the NorCal 40, as compared to using single-ended input?

I'm looking for real-world benefits in using the LM386 in a balanced configuration.

Does the LM386 gain go higher with the balanced input compared to single-ended input?

Is there some reason I should use the two inputs knowing it doubles the number of parts I need in the stage before the amp, like a mute switch or AF filter?

Thsi same question applies to the NE602 output.

Anyone want to tell me what are the benefits of using the NE602 in a balanced output configuration?

As always, I appreciate the group's help in understanding this.

73,

Tom, WA3REY

Date: Wed, 11 Jul 2001 06:56:47 -0400
From: "Mark J. Dulcey" <mark@buttery.org>
To: kd1jv@moose.ncia.net
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [102189] Re: 2M QRP rig Design
Message-ID: <3B4C30EF.DAB09A2@buttery.org>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Steven Weber wrote:

>
> I figured the best way to develop a 2M qrp rig design would be in a
> modular fashion. No sense trying to do everything at once.
>
> Unfortunatly, the VCO board uses about \$30.00 worth of parts. Might
> have to come up with a cheaper way to do this eventually, but it's a
> start. I'll try to get more details of this on the web page sooner or
> later, once we're a bit farther along.

That doesn't strike me as out of line. The LO is the most expensive part of a synthesized rig; you have a CPU and a display there, and those two parts alone probably cost about \$15. Add in the PLL chip, the VCO, and the rest of the parts, and there you are. You didn't mention what you're using to tune the VCO; rotary encoders are nice, but they aren't cheap, either.

The alternative of VFO control is more difficult for 2M than it would be for HF. Obviously, a VFO operating anywhere near 144MHz is right out; it would never be stable enough to be useable. You could do a premix design, but there might be some problems with buildability for the typical ham; the premix LO would typically be something like a third-overtone crystal oscillator followed by a tripler, and alignment of such an LO chain can be a challenge without the correct test instruments. It would be less expensive than the CPU-controlled synthesizer, though. I suppose a possible alternative to that would be a VCO/PLL combination operating at a fixed frequency; a bit more expensive, though.

The other expensive part of the rig is likely to be the final output stage; the simple way to get an easily-buildable result is to use an output module, but they cost a few bucks.

The cost of the rest of the rig should be comparable to a similar design for HF. Add the cost of the synthesized LO and the output module to the parts cost of a NorCal-20 or something of the like, subtract a few dollars for the stuff the LO and output module replace, and you'll be in the right neighborhood. It sounds like a total parts cost of \$100 or so to me.

Date: Wed, 11 Jul 2001 07:16:20 -0400
From: "Richard Clemens" <clemens@wwwc.edu>
To: <rod@n0rc.com>, "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [102190] Re: Why "Piedmont" Radio Electronics Club?
Message-ID: <002201c109fb\$0911fe60\$0301000a@mshome.net>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

And the section in Italy is near France and Switzerland, surrounded by mountains but composed of a fertile plain full of agricultural and industrial production. Not exactly the picture that comes to my mind when think about "a large erosion area formed by the South Platte and Poudre Rivers...."

Might suggest: Cherry Creek, Auraria, Arapahoe, Custer, Kit Carson, Saguache, Rio Blanco...

--

Rich Clemens
clemens@wwwc.edu

> All Eastcoasters know the "real" piedmont is [a lush green area] in the Carolinas, at the foot of the Blue Ridge Mtns

Date: Wed, 11 Jul 2001 11:48:50 -0000
From: "Dennis Ponsness" <wb0wao@hotmail.com>
To: qrp-l@Lehigh.EDU
Subject: [102191] Re: 2M QRP rig Design
Message-ID: <F2199wPiyAphwFutJLt00005705@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

What about VXO operation? The rig would only need to tune a few kHz either side of 144.200 - ideally 20 kHz either side, but 10 kHz either side would be ok too.

And another "nice to have" function would be the ability to bypass any RX filters - auroral CW and narrow filters are mutually exclusive (grin)

Dennis Ponsness - WB0WAO
EN84ij Iosco Cty, Mich.
WAC WAS DXCC VUCC WPX
NJ-QRP #329

Get your FREE download of MSN Explorer at <http://explorer.msn.com>

Date: Wed, 11 Jul 2001 08:03:15 -0400
From: Ray Sills <raysills@1stconnect.com>
To: QRP list <qrp-l@Lehigh.EDU>
Subject: [102192] Re: CW Test
Message-ID: <B771B710.70D7%raysills@1stConnect.com>
MIME-Version: 1.0

Content-Type: text/plain; charset="US-ASCII"
Content-Transfer-Encoding: 7bit

> From: "Mark J. Dulcey" <mark@buttery.org>
>
> I remember taking my General and Advanced tests in New York City, back
> in 1970. You sat in very hard wooden chairs. There was an ancient
> machine in the front of the room that took paper tape; that was the code
> sender. Each desk had a basic straight key attached to it for the
> sending test.
>

Those who took the test at #748 Federal Building, 641 Washington Street, NYC
might also remember that the inter-office intercom was a land morse sounder
and a hand key. I think the old wooden desks also had inkwells in them.

73 de Ray
K2ULR
FN20t1

Date: Wed, 11 Jul 2001 08:14:15 -0400
From: "Richard Brummer, K2JQ" <k2jq@bestweb.net>
To: <clemens@wvwc.edu>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [102193] Re: Why "Piedmont" Radio Electronics Club?
Message-ID: <003a01c10a03\$01d68460\$2005b3d8@obvious>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

If the guy wants to call it "Piedmont," let him call it "Piedmont" ! (- :)

He'll just have to accept all of us East Coasters as members ! (- :)

73,
Dick K2JQ

Date: Wed, 11 Jul 2001 07:12:25 -0500
From: "DONALD G. DORN" <DDORN@CWIS.NET>
To: Low Power Amateur Radio Discussiion <QRP-L@LEHIGH.EDU>
Subject: [102194] ANT ROTOR PROBLEM
Message-ID: <3B4C42A9.71D52307@CWIS.NET>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

I am using a Yaesu G-800SDX ant rotor to turn a small tribander. The thing keeps losing its orientation. I haven't noticed any kind of indication when it happens but all of a sudden the pointing azimuth will be off from 20 to 50 degrees. Anybody had this experience? I don't have a clue.

73,
Don K5AAR
Lake Eufaula, Ok

Date: Wed, 11 Jul 2001 07:28:06 -0500
From: Harris Keith E CONT CNIN <harris_k@crane.navy.mil>
To: "'qrp-l@lehigh.edu'" <qrp-l@lehigh.edu>
Subject: [102195] Re: Why "Piedmont"
Message-ID: <4F76B3D4A76AD111803B00A0C9893D9C06ED8DE5@cninexchsrv05>
MIME-Version: 1.0
Content-Type: text/plain

If not enough to get him to change it, nothing will.

73 de N9KH

Date: Wed, 11 Jul 2001 08:24:32 -0400
From: "Lofstead, Jerry" <Jerry.Lofstead@itb.mckhboc.com>
To: "'raysills@1stconnect.com'" <raysills@1stconnect.com>, Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [102196] RE: CW Test
Message-ID: <078F21595FA7D411B87B00805FA728E64A48E9@atlexc02ntms.hboc.com>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"

Yep,

I remember taking my commercial license test down there in 1962. Boy those

seats were real hard on the butt if you did not have any meat on it, and I didn't. 8-) I guess, those were the 'good ole days'.. I think times are better now.

Jerry
W3CDE

-----Original Message-----

From: Ray Sills [mailto:raysills@1stconnect.com]
Sent: Wednesday, July 11, 2001 8:03 AM
To: Low Power Amateur Radio Discussion
Subject: Re: CW Test

> From: "Mark J. Dulcey" <mark@buttery.org>
>
> I remember taking my General and Advanced tests in New York City, back
> in 1970. You sat in very hard wooden chairs. There was an ancient
> machine in the front of the room that took paper tape; that was the code
> sender. Each desk had a basic straight key attached to it for the
> sending test.
>

Those who took the test at #748 Federal Building, 641 Washington Street, NYC might also remember that the inter-office intercom was a land morse sounder and a hand key. I think the old wooden desks also had inkwells in them.

73 de Ray
K2ULR
FN20t1

Date: Wed, 11 Jul 2001 12:44:31 -0000
From: "Leon Heller" <leon_heller@hotmail.com>
To: tbowman@nbn.net, qrp-l@Lehigh.EDU
Subject: [102197] Re: Receiver questions/ LM386
Message-ID: <F127tpIuPHDXE2sCRBH000138a9@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

.>- What is the advantage of using a balanced input for the LM386 amp in the

>circuits like the Neophyte and the NorCal 40, as .

Why are people *still* using the venerable LM386? There are much better devices around, like the TDA7052, with lower noise, power consumption, distortion, etc.

They are a bit harder to get hold of, and more expensive, but worth it.

73, Leon

--

Leon Heller, G1HSM
Tel: +44 1327 359058
Email:leon_heller@hotmail.com
My web page: http://www.geocities.com/leon_heller

Get Your Private, Free E-mail from MSN Hotmail at <http://www.hotmail.com>.

Date: Wed, 11 Jul 2001 12:51:59 -0000
From: "Leon Heller" <leon_heller@hotmail.com>
To: n2cqr@clix.pt, qrp-1@Lehigh.EDU
Subject: [102198] Re: 17mtr DSB: RX news. Need AF amp advice.
Message-ID: <F2145agKB0KvHurVEib00013768@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

>

>Now I have to build a real AF amp for this RX. I'm tired of the standard
>LM386 or 741 op amp circuits. Isn't there something out there that is 1)
>simple 2) uses discrete components and 3) can drive a speaker? Any
>suggestions?

The output stage from the R2 Rx is very good, if you want to use discrete components. It was designed for high audio quality, to match the rest of the Rx. You'll find it in the ARRL Handbook. It isn't much good if you want to minimise power consumption, however.

73, Leon

--

Leon Heller, G1HSM
Tel: +44 1327 359058
Email:leon_heller@hotmail.com
My web page: http://www.geocities.com/leon_heller

Get Your Private, Free E-mail from MSN Hotmail at <http://www.hotmail.com>.

Date: Wed, 11 Jul 2001 09:27:07 -0400
From: Bill Coleman <aa4lr@arrl.net>
To: <W2SH@aol.com>, "QRP" <qrp-1@Lehigh.EDU>
Subject: [102199] RE: CW Test
Message-ID: <1010611092709.JAD06452@gate.iterated.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="US-ASCII"

On 7/10/01 12:57 PM, W2SH@aol.com at W2SH@aol.com wrote:

>Incidentally, the international treaty, to which the US is a signatory,
>specifies that radio amateurs must demonstrate code proficiency, BOTH
>SENDING
>AND RECEIVING, in order to operate on frequencies below 30 MHz. I've never
>understood why the sending requirement disappeared (like other requirements
>affecting the amateur radio service, e.g., callsigns with a numerical
>geographic designator, it may have originally gone to lighten the FCC's
>workload). At any rate, the sending requirement's omission certainly
>suggests that the US is in violation of its treaty obligation.

As I remember, the sending requirement was deleted in the 70's, largely
because no one who passed the receiving test failed the sending test.

Sending fast is substantially easier than receiving fast. It's common
sense that there's no need for a sending test, at least for most
applicants.

Bill Coleman, AA4LR, PP-ASEL Mail: aa4lr@arrl.net
Quote: "Not within a thousand years will man ever fly!"
 -- Wilbur Wright, 1901

Date: Wed, 11 Jul 2001 09:27:06 -0400
From: Bill Coleman <aa4lr@arrl.net>
To: <k3tks@u1.abs.net>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [102200] Re: New Code Testing
Message-ID: <1010611092707.JAC06452@gate.iterated.com>

Mime-Version: 1.0
Content-Type: text/plain; charset="US-ASCII"

On 7/9/01 9:21 PM, George Gingell at k3tks@u1.abs.net wrote:

>I have absolutley nothing against anyone who starts out at 5 WPM or even
>No-Code and works their way up.

Me neither. And I got my Extra in 1980, when you had to take the 20 wpm
code from a steely-eyed FCC examiner....

>OTOH, If more of us would take a bit of time to help them when they start,
>maybe they would not have to take the same hard road to enjoyment of this
>fine hobby.

Amen.

>How many of you had help getting started? Did you have an Elmer down the
>Street help you learn the Code? How about a kid next door?

Well, my elmer was sort of my brother Ben, who is now NJ8J. He had
learned code in scouts, and gradually built up his speed listening to
hams on the radio. I made several abortive attempts to learn code, but
eventually decided I was just one of those people who couldn't learn it.

Then, in 1975, Ben got his Novice license. Well, even though he is 5
years older, that never stopped me from wanting to do everything he
could. So, I started my code practice in earnest this time. Sure enough,
in the fall of 1975, I got my Novice ticket.

>Instead of complaining about the rules, etc. why not go out and find
>someone who needs a bit of help? Just ONE KID! One Neighbor, One new
>friend...

Good idea. I've been trying to get my nephew's Scout troop back into the
shack.

Bill Coleman, AA4LR, PP-ASEL Mail: aa4lr@arrl.net
Quote: "Not within a thousand years will man ever fly!"
 -- Wilbur Wright, 1901

Date: Wed, 11 Jul 2001 09:27:08 -0400
From: Bill Coleman <aa4lr@arrl.net>

To: <ai2q@adelphia.net>, "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [102201] RE: I Have An Idea
Message-ID: <1010611092709.JAE06452@gate.iterated.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="US-ASCII"

On 7/10/01 2:35 PM, AI2Q Alex at ai2q@adelphia.net wrote:

>My own personal feeling is that the subject you suggest would be of benefit
>*if* the e-mail participants explained the algorithms in language that any
>ham on QRP-L could understand.

That may be difficult. Understanding DSP takes a bit of comprehension of some complex ideas, and a smattering of math. If you want a easy-to-understand book on DSP, I would recommend Designing Digital Filters, by Charles Williams. ISBN 0-13-201856-X. The seminal book on DSP is Digital Signal Processing by Oppenheim and Schafer ISBN 0-13-214635-5. The latter requires an understanding of calculus. I have a copy and, frankly, I don't understand parts of it....

>By the way, I'm an avid CW op. As such, I've always looked on with interest
>at various hw/software approaches to copying CW, and can't see why anyone
>would want to machine-process make-break keying. There are so many far
>superior ways of sending data by radio.

Yup. OOK has about a 4 dB disadvantage to FSK (in the presence of Gaussian noise), if you assume optimal detection techniques.

>Also, has anyone seen any software
>yet that can copy make-break CW as effectively as a skilled human in the
>face of weak signals, QRM, static crashes, and noise?

Actually, it's been done. Perhaps you can't download it off the net, but it is certainly possible to create a decoder for CW that the human ear can't even hear.

>Personally, I'd likely be most interested in the hardware side of such a
>project. Would a PC's 16-bit soundcard A/D provide enough bits of resolution
>for your processing concept?

Plenty.

>What are some other limiting factors of
>processing the actual noise?

That depends on the type of noise and the algorithms used.

>Is there sufficient CPU "horsepower" in a fast

>Pentium box to do all the post-DSP processing?

A modern Pentium (or better) processor has more than sufficient CPU power to do significant DSP work with audio signals.

Bill Coleman, AA4LR, PP-ASEL Mail: aa4lr@arrl.net
Quote: "Not within a thousand years will man ever fly!"
 -- Wilbur Wright, 1901

Date: Wed, 11 Jul 2001 09:27:04 -0400
From: Bill Coleman <aa4lr@arrl.net>
To: <na5n@rt66.com>, "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [102202] Re: The radio astronomy post
Message-ID: <1010611092705.JAA06452@gate.iterated.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="US-ASCII"

On 7/6/01 8:40 PM, Paul Harden, NA5N at na5n@rt66.com wrote:

>Several also pointed out the sun is the loudest celestial source on HF,
>and I had omitted it. This is not really true, as the sun is really a
>weak signal source on HF, at least BELOW the MUF.

But, if the MUF is 22 MHz, won't other extra-terrestrial HF radio sources be just as attenuated as the sun? (Naturally, you might be able to observe such sources late at night or before sunrise, when the MUF is lower, which you cannot, by definition, do with the Sun)

>We do experience elevated noise levels during daylight hours. This is not
>solar "noise" or radiation directly, but more due to the sun causing noise
>from atmospheric heating (indirectly).

I remember visiting Green Bank observatory about 25 years ago. Among their demonstrations, they had a dish about 1 meter across. The guides indicated that the only celestial source they could really observe with this small a radio telescope was the Sun. And they proceeded to demonstrate. Naturally, this was for radio frequencies above the HF region.

>Radio astronomy is an interesting science in itself, and while it has many
>similarities to shortwave communications as we understand it, it also has
>many differences (or at least from a different point of view).

Indeed, very interesting.

Bill Coleman, AA4LR, PP-ASEL Mail: aa4lr@arrl.net
Quote: "Not within a thousand years will man ever fly!"
 -- Wilbur Wright, 1901

Date: Wed, 11 Jul 2001 09:38:13 -0400
From: Bill Coleman <aa4lr@arrl.net>
To: "QRP" <qrp-1@Lehigh.EDU>
Subject: [102203] Re: I Have An Idea
Message-ID: <1010611093813.JAA07565@gate.iterated.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="US-ASCII"

On 7/10/01 1:20 PM, Randall Jouett at rules@bellsouth.net wrote:

>
>Basically, I've been thinking about using a computer
>and DSP to detect weak signals. What I'm thinking about
>doing is using a differential sampling technique. That is, the
>receiver would sample the frequency a few times, convert it
>to digital, numeric data, and store it in a hash table where it
>can be compared against other samples.

This "sample" -- is it a digitization of the magnitude of the receiver passband?

> The first sample
>would be subtracted from the second sample, and if there is
>a big enough difference, we have signal. If not, we don't.

Congratulations, you have just invented a 1 tap digital filter!

Seriously!

Of course, such a filter is bound to your sampling rate to determine it's response.

>Also,
>the computer could be programed to compare incoming signals
>against known database of valid language, and if the signal is
>not strong enough, you might be able to extrapolate the data

>and still build a complete sentence. Not only that, but with proper
>timing techniques, you'd think you'd be able to still tell what
>is being sent even with minute changes in the signal.

Depending on the modulation type (I'll assume OOK for CW), there are a bunch of things you could do to improve the response to a signal. Filtering for a given bandpass detecting and then using a low-pass filter would help. These features are typical for any sort of DSP decoding.

There's a couple of ways to do detection. Amplitude threshold detection works. The AEA PK-232 does this in analog. Synchronous detectors, especially those using quadrature signals, would be much more sensitive. But they can be very frequency-sensitive. (Auto-correlation detectors would work, but they are frequency dependant, and I don't think they work so well for CW)

>I'm even thinking about using the data as an input to a neural
>network and training the net to copy CW, and it might also
>be able to help out with data extrapolation.

There's actually been a lot of work with neural networks to decode limited-vocabulary speaker-independent voice in very noisy environments. Seems like massive overkill for CW decoding.

>A system like this should be able to copy a CW signal that's
>just above or even slightly below the noise floor :^).

In the mid-80s, Tom Clark W3IWI and Bob McGwier N4HY did some experiments with DSP. They managed to send and copy CW signals THEY COULD NOT EVEN HEAR on 432 MHz. Their equipment was simple -- they simply had a DSP generating a continuous FFT spectral display. When the CW carrier was present, it was quite visible. They decoded the CW visually off the spectral display! At no time was the CW signal audible -- yet it was detectable.

>A great
>application would be using the setup to copy transmitting
>space craft that has left the solar system, and it could also
>shine when used with other radio-astronomy techniques.
>Oh, and it should work really, really well for QRPpppp work,
>too :^).

Yup!

Bill Coleman, AA4LR, PP-ASEL Mail: aa4lr@arrl.net
Quote: "Not within a thousand years will man ever fly!"
 -- Wilbur Wright, 1901

Date: Wed, 11 Jul 2001 09:44:30 -0400
From: "Mark J. Dulcey" <mark@buttery.org>
To: wb0wao@hotmail.com
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [102204] Re: 2M QRP rig Design
Message-ID: <3B4C583E.4CEB5B74@buttery.org>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Dennis Ponsness wrote:

>
> What about VXO operation? The rig would only need to tune a few kHz either
> side of 144.200 - ideally 20 kHz either side, but 10 kHz either side would be
> ok too.

Crystals that operate near 144 MHz are 7th overtone crystals. I'm under the impression that overtone crystals don't "bend" well, but I may be wrong; I've never tried it. Besides, you'll cringe when you find out how much that crystal will cost in small quantities; it might be as much as \$20. At that price, you might as well build the synthesizer.

Or you could use a fundamental crystal followed by two triplers to achieve x9 multiplication, but now you're back to having multiplier stages to align. On the other hand, that approach would give you plenty of tuning range.

If we're concerned with the dynamic range of the rig, frequency multiplication is undesirable, since the noise gets multiplied along with the frequency. The performance of the frequency-multiplied LO chain might actually be worse than a synthesizer! On the other hand, a simple design like this isn't likely to achieve really high dynamic range anyway, so some degree of compromise in the LO is probably acceptable.

Date: Wed, 11 Jul 2001 09:26:44 -0500
From: "Ed Manuel (N5EM)" <n5em@flash.net>
To: qrp-1@lehigh.edu
Subject: [102205] Re: 2M QRP rig Design
Message-ID: <4.3.2.7.2.200107111085113.00bcb490@pop.flash.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

At 09:44 AM 7/11/01 -0400, you wrote:

>Dennis Ponsness wrote:

> >

> > What about VXO operation? The rig would only need to tune a few kHz either

> > side of 144.200 - ideally 20 kHz either side, but 10 kHz either side

> would be

> > ok too.

One of the classic designs for a VXO on 2m is Wes Hayward's in Solid State Design. He recommends a VXO in the 18 mhz. range (lower if you want an offset LO) followed by three doublers using balanced diodes to achieve the best suppression of unwanted products. Using MMICs where gain is needed the part count and board space would be fairly small.

Ed, N5EM

Date: Wed, 11 Jul 2001 08:48:11 -0600

From: "Rod Cerkoney, N0RC" <rod@n0rc.com>

To: <ncarc@qth.net>, "Elecraft-list" <elecraft@qth.net>, "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>

Subject: [102206] "Club-pre" get "Radio Active"

Message-ID: <002601c10a18\$830c5180\$6401a8c0@c919125b>

MIME-Version: 1.0

Content-Type: text/plain;
charset="iso-8859-1"

Content-Transfer-Encoding: 7bit

Those interested in the Piedmont Radio Electronics Club, read on.

Point 4 from the "OUR ORGANIZATION/OPERATION PHILOSOPHY":

"Use the internet like another Amateur Radio Band, starting with
www.club-pre.org"

I now have the email reflector ready to "rock", If you're interested
subscribe as follows:

SUBSCRIBING TO THE "MEMBERS" REFLECTOR.

Send email as follows:

TO: majordomo@club-pre.org

SUBJ: none required

BODY: subscribe members

You will then receive a confirmation email, to which you must reply.
Instructions are provided in the confirmation email.

* * * * *

Remember Club-pre is targeted at "Radio Active" hams in CO WY NE and NE-KS, but is not limited to hams in this area. When 6 or eight people have subscribed I'll post some of my ideas for Club Pre activities. Active involvement is encouraged at Club Pre.

* * * * *

Further discussion of "Club-pre" and it's "operations" will take place on it's own email reflector. I've burdened the other lists enough. I thank the list owners and readers for their tolerance as I get this Club-pre thing "booted up".

"Club-pre" and I will post messages to these other lists when relevant.

73, Rod N0RC <http://www.club-pre.org>
Ft Collins, CO

 SuperFest 2001 14-Jul-2001
 <http://www.qsl.net/n0rc/hamfest/hamfest.html>
 BE THERE!

Date: Wed, 11 Jul 2001 07:54:11 -0700
From: "Dave Fifield" <ad6a@earthlink.net>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [102207] Re: 17mtr DSB: RX news. Need AF amp advice.
Message-ID: <002d01c10a19\$590f0020\$0600a8c0@earthlink.net>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"

Content-Transfer-Encoding: 7bit

Try a National Semiconductor "Boomer" CMOS audio amp. There are many to choose from. Go to <http://www.natsemi.com> and do a search for them. They are LOUD, use low voltage, are fairly efficient, so current consumption is not too bad, use hardly any external components at all, yet still produce good loudspeaker volume.

On my R2 (homebrew pcb, built for 2m CW/SSB) I found that the audio amp was sinking waaay too much current (wasted). I changed a couple of resistor values in it and brought it down to around 20mA if I recall correctly, with no audible loss of quality. If you like, I can dig out my schematic and let you know the values to change.

Cheers,
Dave Fifield, AD6A

>>
>>Now I have to build a real AF amp for this RX. I'm tired of the standard
>>LM386 or 741 op amp circuits. Isn't there something out there that is 1)
>>simple 2) uses discrete components and 3) can drive a speaker? Any
>>suggestions?
>
>The output stage from the R2 Rx is very good, if you want to use discrete
>components. It was designed for high audio quality, to match the rest of the
>Rx. You'll find it in the ARRL Handbook. It isn't much good if you want to
>minimise power consumption, however.

Date: Wed, 11 Jul 2001 09:50:39 -0500
From: "Randall Jouett" <rules@bellsouth.net>
To: <aa4lr@arrl.net>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [102208] Re: I Have An Idea
Message-ID: <004201c10a19\$e6988560\$130a4ed8@spock>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

----- Original Message -----
From: Bill Coleman <aa4lr@arrl.net>
To: <rules@bellsouth.net>
Sent: Tuesday, July 10, 2001 1:13 PM

Subject: Re: I Have An Idea

> On 7/10/01 1:20 PM, Randall Jouett at rules@bellsouth.net wrote:

>

> >

> > Basically, I've been thinking about using a computer

> > and DSP to detect weak signals. What I'm thinking about

> > doing is using a differential sampling technique. That is, the

> > receiver would sample the frequency a few times, convert it

> > to digital, numeric data, and store it in a hash table where it

> > can be compared against other samples.

>

> This "sample" -- is it a digitization of the magnitude of the receiver

> passband?

Yes. Exactly. Either that, or just a change in the noise level. Timing code might be able to discern valid signal both parties are sending at a known rate, and that's where the extrapolation comes into play.

> > The first sample

> > would be subtracted from the second sample, and if there is

> > a big enough difference, we have signal. If not, we don't.

>

> Congratulations, you have just invented a 1 tap digital filter!

>

> Seriously!

>

> Of course, such a filter is bound to your sampling rate to determine it's

> response.

Kewl, although something tells me it's going to take a little more math than simple subtraction. That is, maybe you might have to take two samples and do a left-to-right, byte-by-byte comparison and subtract at that point. The solution also might lie in averaging or supplying a digital mask, such as OR, XOR, NOT, and NOR. Hmmm. The addition of a bit blitter which had multiple sources which would combine to a single destination (in the hash table) might help with copy, too. As far as averaging is concerned, you might be able to use an averaged sample as a mask, and that might increase your chances of detecting the signal properly. Hmmm. I'll have to think about that technique further, though.

I guess you could tie this setup into the receiver and have it narrow or expand the passband once the system has locked on to the signal. It might also help out if everyone transmitted at a known rate when working QRP¹⁰ -6 watts :^). Another improvement would be to drop transmission rates by 5 WPM so that two systems would have an easier time copying each other and syncing up when things really get rough on the bands. (Shrug.)

- > Depending on the modulation type (I'll assume OOK for CW), there are a
- > bunch of things you could do to improve the response to a signal.
- > Filtering for a given bandpass detecting and then using a low-pass filter
- > would help. These features are typical for any sort of DSP decoding.

One of the things I was thinking about was carrier reinsertion so that we can still use our radios for ear copy. That would be kewl, and it would also keep the old timers happy :^). Of course you could also have a pure digital mode, complete with computer interface, and that would be kewl, too :^). Not only that, but this technique would also use up a LOT less spectrum, and that would REALLY be kewl :^).

As far as filtering and DSP's go, I'm familiar with them (to some extent), but I've never, ever wrote a single line of DSP code. I don't even have any idea what the instruction set looks like, although I'm pretty sure I could get a grasp on it fairly quickly. I am familiar with filtering techniques and have used them in my code, though, and I am an assembly hacker (using the original term here), so I don't think I'll have too many problems learning the stuff. (Shrug.)

- > There's a couple of ways to do detection. Amplitude threshold detection
- > works. The AEA PK-232 does this in analog. Synchronous detectors,
- > especially those using quadrature signals, would be much more sensitive.
- > But they can be very frequency-sensitive. (Auto-correlation detectors
- > would work, but they are frequency dependant, and I don't think they work
- > so well for CW)

My original thought on this was amplitude threshold, having the neural net adjust the level lower and lower until it could no longer detect a signal. At that point, it would increase the threshold until the signal was solid copy, adjusting up or down in threshold as necessary.

> >I'm even thinking about using the data as an input to a neural
> >network and training the net to copy CW, and it might also
> >be able to help out with data extrapolation.
>
> There's actually been a lot of work with neural networks to decode
> limited-vocabulary speaker-independent voice in very noisy environments.
> Seems like massive overkill for CW decoding.

Probably so. The network stuff is more of a brainstorm
than anything else, but I think it could be useful in threshold
adjustments and in other areas. (Shrug.)

> >A system like this should be able to copy a CW signal that's
> >just above or even slightly below the noise floor :^).
>
> In the mid-80s, Tom Clark W3IWI and Bob McGwier N4HY did some experiments
> with DSP. They managed to send and copy CW signals THEY COULD NOT EVEN
> HEAR on 432 MHz. Their equipment was simple -- they simply had a DSP
> generating a continuous FFT spectral display. When the CW carrier was
> present, it was quite visible. They decoded the CW visually off the
> spectral display! At no time was the CW signal audible -- yet it was
> detectable.

Well, I was thinking that it would most definitely be possible to
copy code without hearing it. I just didn't want to make a statement
like this without knowing for sure :^).

> >A great
> >application would be using the setup to copy transmitting
> >space craft that has left the solar system, and it could also
> >shine when used with other radio-astronomy techniques.
> >Oh, and it should work really, really well for QRPpppp work,
> >too :^).
>
> Yup!

Yep. It will be kewl :^).

Randy

--

HAMateur Radio: AB5NI

Date: Wed, 11 Jul 2001 10:04:11 -0500
From: "Randall Jouett" <rules@bellsouth.net>
To: <qrp-l@Lehigh.EDU>
Subject: [102209] Re: I Have An Idea
Message-ID: <005101c10a1a\$c04ec620\$130a4ed8@spock>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Ok. I've cooled down a bit, and here are some of the remarks that I've made in private e-mail answering questions that people have asked. Hopefully, they'll be understandable without their comments...

Well, with current technology, we have more than enough CPU horsepower to pull this off. What you would want to do is sample 100 Hz of _RF_ spectrum and put the design in the IF portion of a rig. Admittedly, testing could be done at audio frequencies and we could use a DSP there, but the setup would most definately shine when used in an RF application.

The answer lies somewhere within the realm of mathematics, ****.
All it will take is a little playing around with algorithms to see where things sit.

No. That is not what I'm trying to do. What I'm trying to do is provide the amateur community with a technique that will help them when the bands get rough and signals get weak. Nothing more. If other hams want to take the technique and apply it to something else that helps them out, that's kewl with me :^).

Well, I was thinking that we could all send at fixed rate of speed. Say, 20 WPM and dropping down by 5 WPM at a time until the signals are synced. Once this is done, wouldn't that make things a little easier? (Shrug.) Things would be synchronous at that point, and since we would be dealing with fixed, known timings, things should be somewhat easier, and the extrapolation and filtering algorithms should have a much easier time with things. That is, now we are dealing with a constant, and adding a constant to the formula/algorithm should help in the recovery/demodulation and copyability of data.

This is all "off the top of my head" speculation, of course, but it does make a certain amount of sense. I'll have to think about it.

I'm thinking about using a sliding-window technique that would look at a range of hash buckets for valid signal. I wonder if that would help?

Randy

--

HAMateur Radio: AB5NI

P.S.

I'll be answering everyone's e-mail shortly :^).

Date: Wed, 11 Jul 2001 08:01:41 -0700
From: "DTX" <dtx@wood.tzo.com>
To: <qrp-1@lehigh.edu>
Cc: <rules@bellsouth.net>
Subject: [102210] Re: I Have An Idea
Message-ID: <000f01c10a1a\$64d395a0\$0c00a8c0@home>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

For those who have not had some hands-on, real world experience with dsp processing, there is a rather nice program (freeware) available here.

<http://www.wh2.tu-dresden.de/~bernd109/amateurfunk/filtenglish.zip>

It works at audio, lets you choose a couple of filter types and characteristics, lp, hp, bp and reject. I was impressed with its ability to pull out just one cw signal. Actually, if you push it, it will pull out less than one cw signal ;-)

Randal wants to take this even farther, to go back into the IF and aid in

the detection of the signal. This little program (and most others around) are doing post-detection processing, i.e. enhancing what you have some of. Pre-detection processing will help you get something you would otherwise not have.

And yes, it is probably more effort than the results gained are worth, but hey, we are hobbyists. We don't need no stinking cost-benefits analysis to justify our time. If you haven't ever said Boy, was that a waste of time and effort, then I submit that you are just an appliance operator. OMHO.

Gary

----- Original Message -----

From: "Bill Coleman" <aa4lr@arrl.net>

To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>

Sent: Wednesday, July 11, 2001 6:38 AM

Subject: Re: I Have An Idea

> On 7/10/01 1:20 PM, Randall Jouett at rules@bellsouth.net wrote:

>

> >

> >Basically, I've been thinking about using a computer

> >and DSP to detect weak signals. What I'm thinking about

> >doing is using a differential sampling technique. That is, the

Date: Wed, 11 Jul 2001 11:35:13 -0400

From: Bill Coleman <aa4lr@arrl.net>

To: "Caitlyn M. Martin" <caitlynmaire@earthlink.net>, "Bill Coleman" <aa4lr@arrl.net>

Cc: "QRP" <qrp-1@Lehigh.EDU>

Subject: [102211] Re: CW Test

Message-ID: <1010611113514.LAA17553@gate.iterated.com>

Mime-Version: 1.0

Content-Type: text/plain; charset="US-ASCII"

On 7/10/01 6:50 PM, Caitlyn M. Martin at caitlynmaire@earthlink.net wrote:

>Hi, Bill,

>>

>> The funny thing is, that code is not, and has never been hard to learn.

>> All it requires is practice.

>

>That is **not** true for everyone. Just because it was not hard for you
>doesn't make it so for everyone else.

Well, I've posted my story. I thought I couldn't learn code. I never said
it wasn't a struggle. It just isn't hard. Like any other skill, learning
code takes practice. Practicing, on the other hand, can be a struggle.

> I still managed to pass my General in 1987, and
>could pass a 20 WPM test today if I had to. That still doesn't mean it was
>easy for me.

You're doing better than many. I know of guys who have been hams 30+
years with General or Advanced that can't copy a dit today.

Bill Coleman, AA4LR, PP-ASEL Mail: aa4lr@arrl.net
Quote: "Not within a thousand years will man ever fly!"
 -- Wilbur Wright, 1901

Date: Wed, 11 Jul 2001 08:39:06 -0700
From: Bob Nielsen <nielsen@oz.net>
To: qrp-l@lehigh.edu
Subject: [102212] Re: CW Test
Message-ID: <20010711083906.A5904@oz.net>
Mime-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Disposition: inline

On Wed, Jul 11, 2001 at 09:27:07AM -0400, Bill Coleman wrote:

> On 7/10/01 12:57 PM, W2SH@aol.com at W2SH@aol.com wrote:

>

> >Incidentally, the international treaty, to which the US is a signatory,
> >specifies that radio amateurs must demonstrate code proficiency, BOTH
> >SENDING
> >AND RECEIVING, in order to operate on frequencies below 30 MHz. I've never
> >understood why the sending requirement disappeared (like other requirements
> >affecting the amateur radio service, e.g., callsigns with a numerical
> >geographic designator, it may have originally gone to lighten the FCC's
> >workload). At any rate, the sending requirement's omission certainly
> >suggests that the US is in violation of its treaty obligation.

>

> As I remember, the sending requirement was deleted in the 70's, largely
> because no one who passed the receiving test failed the sending test.

>
> Sending fast is substantially easier than receiving fast. It's common
> sense that there's no need for a sending test, at least for most
> applicants.

When I took my General test in 1953 there was one applicant who passed the 13 wpm receiving test and failed the sending test. I suspect it was nerves, or possibly he had only been using a bug and couldn't handle the straight key at the FCC office.

Bob, N7XY

Date: Wed, 11 Jul 2001 10:40:11 -0500
From: "Randall Jouett" <rules@bellsouth.net>
To: <qrp-1@Lehigh.EDU>
Subject: [102213] My Apology to EE's
Message-ID: <005f01c10a20\$c2ac7d80\$130a4ed8@spock>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Hi Gang,

Well, I had to go nuclear -- as usual! -- and put my foot in my mouth yet again! Let it be known that I have the utmost respect for my friends and fellow workers in field of EE, and I ever so humbly appologize for the remark I made about electrical engineering. I think most of you realize that I said this to tick off Laura and put that arrogant, eccentric, "she knows everything" b***h in her place. Any way, I was totally wrong in doing this, and I'm very, very sorry for that remark. I WAS WRONG!

Randy

--

HAMateur Radio: AB5NI

Date: Wed, 11 Jul 2001 16:10:10 -0000
From: "Dennis Ponsness" <wb0wao@hotmail.com>
To: qrp-1@Lehigh.EDU
Subject: [102214] Re: 2M QRP rig Design
Message-ID: <F35fQdmEB4HGXAwxXSX00016410@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

Hmmmm, good points (both of them), what brought it to mind was my first 70cm rig for weak signal - KLM Echo-70 (remember them?). Tuned in what i believe was 20 kHz steps with a VX0 to fine tune. Had a switch on the back to select either 432 or 435 MHz as i recall. Nice rig, very sensitive for its day.

I am looking forward to seeing what will come of this project, I do want to build one!!!! Anyone for some QRP AU contacts this winter?

Dennis Ponsness - WB0WAO
EN84ij Iosco Cty, Mich.
WAC WAS DXCC VUCC WPX
NJ-QRP #329

Get your FREE download of MSN Explorer at <http://explorer.msn.com>

Date: Wed, 11 Jul 2001 16:11:02 -0000
From: "Dennis Ponsness" <wb0wao@hotmail.com>
To: qrp-1@Lehigh.EDU
Subject: [102215] Re: 2M QRP rig Design
Message-ID: <F161rhup7IpGwC6RZT2000057a2@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

Hmmmm, good points (both of them), what brought it to mind was my first 70cm rig for weak signal - KLM Echo-70 (remember them?). Tuned in what i believe was 20 kHz steps with a VX0 to fine tune. Had a switch on the back to select either 432 or 435 MHz as i recall. Nice rig, very sensitive for its day.

I am looking forward to seeing what will come of this project, I do want to build one!!!! Anyone for some QRP AU contacts this winter?

Dennis-WB0WAO

Dennis Ponsness - WB0WAO
EN84ij Iosco Cty, Mich.
WAC WAS DXCC VUCC WPX
NJ-QRP #329

Get your FREE download of MSN Explorer at <http://explorer.msn.com>

Date: Wed, 11 Jul 2001 11:08:28 -0500
From: "Mike Branca" <w3irz@att.net>
To: <qrp-1@Lehigh.EDU>
Subject: [102216] Re: Receiver questions/ LM386
Message-ID: <035b01c10a23\$b97a07c0\$fe0b4d0c@default>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Yes. The '386 balanced input & the '602 balanced output will give a bit more gain for just a few parts. And since they are both already balanced it seems foolish not to take advantage if it.

Mike W3IRZ in Conyers Georgia

Date: Wed, 11 Jul 2001 09:43:28 -0700 (PDT)
From: agtaylor@llnl.gov
To: qrp-1@lehigh.edu
Subject: [102217] Re: Receiver questions/ LM386
Message-ID: <200107111643.JAA21942@poptop.llnl.gov>
MIME-Version: 1.0
Content-Type: TEXT/plain; CHARSET=US-ASCII

OK, why do we? Well I for one have never heard of such a chip.

Educate us! Tell us the advantages, specifics on power consumption, etc. And then tell us where we can find these gems. Do they have a pin-compatible pinout?

Many of us are NOT practicing EEs and do not have professional

journals and ads coming to our door. Almost all I know about transistor and chip technology comes from this reflector and an old copy of DeMaw/Hayward's SSDRA.

I would love to have another 1 mA less current consumption in my NC40A for backpacking.

73 K7GT

--

Allan G Taylor

agtaylor@llnl.gov

Date: Wed, 11 Jul 2001 11:04:59 -0600 (MDT)
From: "Karl F. Larsen" <k5di@zianet.com>
To: <qrp-l@lehigh.edu>
Subject: [102218] Wow what's out there!
Message-ID: <Pine.LNX.4.33.0107111055190.7473-100000@localhost.localdomain>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

This morning I have been reading e-mail with webpage info that I followed and have become saturated with new information. I have an experimental dsp filter running on my win98 laptop since this computer just has Linux. I will spend a lot of time with this software because it uses the sound card DSP to make filter elements of adjustable bandpass.

I have and use a Radio Shack DSP audio filter when chasing Fox or just a qso on busy 20 cw. It works just fine and it has it's own speaker and runs from 12 vdc so it's a real asset to any receiver not having good audio or narrow bandwidth. My SMK-1 direct conversion receiver is very broad but put the audio through this filter and it's narrow and loud.

The new software should do the same thing. What a lot of new toys to play with!

--

Yours Truly,

- Karl F. Larsen, k5di@arrl.net (505) 524-3303 -

Date: Wed, 11 Jul 2001 13:08:51 -0400
From: "Tom Curtola" <tcurtola@home.com>
To: <clemens@wvwc.edu>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [102219] Re: Why "Piedmont" Radio Electronics Club?
Message-ID: <000901c10a2c\$28c62e80\$9eb72a18@yec1.on.wave.home.com>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 8bit

Piedmont is roughly translated from the French meaning "foot-hills."

Pied = Foot
Mont = Mountain, Mount or Hill

That's why you see this place name used at so many places near foot-hills.

Another example of French geographically historical names is Presque Isle or sometimes spelt Presqu'ile which is used quite often around peninsulas as the translation for that term means roughly "almost Island"

Presque = Almost, Near
le = Island

How about this one; Illinois... an English bastardization of the spelling "le de Nois" for the French meaning "Isle of Nuts." Probably the Frenchman, who had first landed there from the Great Lakes, thought he had come across a big island. Are there a lot of oak nut trees or some sort of nutty trees in abundance there in Illinois? Near the great lakes?

Anyhow, I'll shut my "trou de g teau" now. (cake-hole)

Tom Curtola
tcurtola@home.com
Toronto, Ontario - Canada (Canada is native for "the village")
VA3TY

----- Original Message -----

From: "Richard Clemens" <clemens@wvwc.edu>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Sent: Wednesday, July 11, 2001 7:16 AM
Subject: Re: Why "Piedmont" Radio Electronics Club?

> And the section in Italy is near France and Switzerland, surrounded by

> mountains but composed of a fertile plain full of agricultural and
> industrial production. Not exactly the picture that comes to my mind when
> think about "a large erosion area formed by the South Platte and Poudre
> Rivers...."
>
> Might suggest: Cherry Creek, Auraria, Arapahoe, Custer, Kit Carson,
> Saguache, Rio Blanco...
>
> --
> Rich Clemens
> clemens@wvwc.edu
>
> > All Eastcoasters know the "real" piedmont is [a lush green area] in the
> Carolinas, at the foot of the Blue Ridge Mtns
>

Date: Wed, 11 Jul 2001 13:06:29 -0400
From: "Lofstead, Jerry" <Jerry.Lofstead@itb.mckhboc.com>
To: "'agtaylor@llnl.gov'" <agtaylor@llnl.gov>, Low Power Amateur Radio Discussion
<qrp-1@Lehigh.EDU>
Subject: [102220] RE: Receiver questions/ LM386
Message-ID: <078F21595FA7D411B87B00805FA728E64A48F6@atlexc02ntms.hboc.com>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"

go to <http://www.national.com/> and "learn" your heart out.. More than you
want to know... 8-)

Jerry
W3CDE

-----Original Message-----
From: agtaylor@llnl.gov [mailto:agtaylor@llnl.gov]
Sent: Wednesday, July 11, 2001 12:43 PM
To: Low Power Amateur Radio Discussion
Subject: Re: Receiver questions/ LM386

OK, why do we? Well I for one have never heard of such a chip.

Educate us! Tell us the advantages, specifics on power consumption, etc.
And then tell us where we can find these gems. Do they have a
pin-compatible pinout?

Many of us are NOT practicing EEs and do not have professional journals and ads coming to our door. Almost all I know about transistor and chip technology comes from this reflector and an old copy of DeMaw/Hayward's SSDRA.

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73 K7GT

--

Allan G Taylor

agtaylor@llnl.gov

Date: Wed, 11 Jul 2001 13:04:48 -0700
From: "Dave Benson" <nn1g@earthlink.net>
To: <qrp-1@lehigh.edu>
Subject: [102221] Callsign change
Message-ID: <000201c10a45\$78ab54c0\$c6b71a26@pavilion>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

gang-

I've just retired the well-known 'NN1G' callsign. It's widely-recognized and it's been fun, but there were a couple reasons for making the change. If for no other reason, the new one will look better on a vanity license plate!

73- Dave Benson, K1SWL

Date: Wed, 11 Jul 2001 12:16:37 -0500
From: "Randall Jouett" <rules@bellsouth.net>

To: <dtx@wood.tzo.com>, "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [102222] Re: I Have An Idea
Message-ID: <008101c10a2e\$169c4d00\$130a4ed8@spock>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

----- Original Message -----

From: DTX <dtx@wood.tzo.com>
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Sent: Wednesday, July 11, 2001 10:01 AM
Subject: Re: I Have An Idea

Hey Gary,

> For those who have not had some hands-on, real world experience with dsp
> processing, there is a rather nice program (freeware) available here.
>
> <http://www.wh2.tu-dresden.de/~bernd109/amateurfunk/filtenglish.zip>
>
> It works at audio, lets you choose a couple of filter types and
> characteristics, lp, hp, bp and reject. I was impressed with its ability to
> pull out just one cw signal. Actually, if you push it, it will pull out
> less than one cw signal ;-)

Too kewl. I've give it a look, and thanks for the link!

> Randal wants to take this even farther, to go back into the IF and aid in
> the detection of the signal.

Exatamudo! Give that man a seegar! :^)

> This little program (and most others around)
> are doing post-detection processing, i.e. enhancing what you have some of.
> Pre-detection processing will help you get something you would otherwise not
> have.

After thinking this last night and this morning, I came up with another idea, Gary. For the sake of learning how these algorithms work, I was thinking about recording a very, very weak signal to my computer's HD and applying test algorithms to the captured data. This would be audio, post-level processing, of course, but I'm sure my computer wouldn't mind trying different algorithms and grinding up the data for a few weeks :^). I guess I could set up a timer, and

once one of the algorithms detect the signal, I'd have a timed baseline that I could use for comparisons. Hmmm. I wonder two of us could get on the air, send our calls, name, location, and give an RST report and make a valid contact 3 hours after the algorithms figure out what in the heck was said? LOL! :^). I wouldn't see why that wouldn't be a legit contact :^).

> And yes, it is probably more effort than the results gained are worth, but
> hey, we are hobbyists. We don't need no stinking cost-benefits analysis to
> justify our time. If you haven't ever said Boy, was that a waste of time
> and effort, then I submit that you are just an appliance operator. OMHO.

Well, in my 41 years on this planet, I've sure wasted a TON of time messing around with stuff like this :^). I guess I'll never learn! :^)

Randy

--

HAMateur Radio: AB5NI

Date: Wed, 11 Jul 2001 17:23:26 -0000
From: "Leon Heller" <leon_heller@hotmail.com>
To: w3irz@att.net, qrp-l@Lehigh.EDU
Subject: [102223] Re: Receiver questions/ LM386
Message-ID: <F1912ZBNCogiWHSqhA50000d1a4@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

>
>Yes. The '386 balanced input & the '602 balanced output will give a bit
>more
>gain for just a few parts. And since they are both already balanced it
>seems foolish not to take advantage if it.

The main reason for using balanced input and output with the '602 is to minimise AM demodulation of strong BC stations. This is a serious problem with simple DC receivers in Europe.

73, Leon

--

Leon Heller, G1HSM
Tel: +44 1327 359058

Email:leon_heller@hotmail.com
My web page: http://www.geocities.com/leon_heller

Get Your Private, Free E-mail from MSN Hotmail at <http://www.hotmail.com>.

Date: Wed, 11 Jul 2001 13:33:03 -0400
From: dmaliniak@penton.com
To: qrp-1@lehigh.edu
Subject: [102224] NN1G out of circulation
Message-ID: <0FD2E3D7A9.F511AC0A-0N85256A86.005FE979@penton.com>
MIME-Version: 1.0
Content-type: text/plain; charset=us-ascii

Dave and all:

When I applied for my vanity call last December, one of the calls on my list was NN2G. Why? Because of the dB or so I figured I'd gain in the QRP contests for having a call that was vaguely, kinda sorta familiar to most QRPers. "Hey, that's that SWL guy! QRP Hall of Famer!" Nope, sorry, wrong Dave, but thank you all the same. Good thing it wasn't my Number 1 priority (it was actually my number 2).

So... Dave Fifield... please stick with AD6A!!! Help me out here, I have *very* marginal antennas. :-)

72,
David, AD2A
Glen Rock, NJ

Date: Wed, 11 Jul 2001 13:50:59 -0400
From: Bill Coleman <aa4lr@arrl.net>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [102225] Re: I Have An Idea (fwd)
Message-ID: <1010611135059.NAA00722@gate.iterated.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="US-ASCII"

On 7/10/01 5:19 PM, Brian.Buydens@usask.ca at buydens@duke.usask.ca wrote:

>Now if only we could entice the yawning people to write a
>tutorial for the "What is sampling" people.

For those that are interested, there's a good tutorial on the extreme basics of DSP in the ARRL Handbook. (At least, there is in my 2000 handbook)

It goes into some of the basics of how DSP works, the types of filtering codes, and some of the aspects of DSP design.

It makes a good primer for some other text, like the Designing Digital Filters book by Charles Williams.

Bill Coleman, AA4LR, PP-ASEL Mail: aa4lr@arrl.net
Quote: "Not within a thousand years will man ever fly!"
 -- Wilbur Wright, 1901

Date: Wed, 11 Jul 2001 13:53:53 -0700
From: "John Dorson" <JDORSON@worldshare.net>
To: <nn1g@earthlink.net>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [102226] Re: Callsign change
Message-ID: <004101c10a4b\$98d363e0\$087c2526@atwork>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

I FOR ONE AM SORRY FOR THE CHANGE. I'LL MISS IT..

JOHN K2JHU,,,
----- Original Message -----
From: "Dave Benson" <nn1g@earthlink.net>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Sent: Wednesday, July 11, 2001 1:04 PM
Subject: Callsign change

> gang-
>
> I've just retired the well-known 'NN1G' callsign. It's widely-recognized
> and
> it's been fun, but there were a couple reasons for making the change. If
> for no other reason, the new one will look better on a vanity license
> plate!
>

> 73- Dave Benson, K1SWL

>
>
>
>
>
>
>
>
>
>

Date: Wed, 11 Jul 2001 11:04:20 -0700
From: Bob Nielsen <nielsen@oz.net>
To: qrp-1@lehigh.edu
Subject: [102227] Re: NW DX Convention: any QRP'ers?
Message-ID: <20010711110420.A6297@oz.net>
Mime-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Disposition: inline

On Tue, Jul 10, 2001 at 10:28:23PM -0700, N7SG K7FD wrote:

> In Everett, Washington July 20-22 is the Northwest DX Convention. Wonder if
> anyone on this list plans to attend? I know Ben NW7DX, Annette N7SG, and
> yours truly will be there, any others?
>
> K7FD/P will be active from the Everett Holiday Inn, K2 and MP-1. This could
> change to the K1 and MP-1...especially if the K1 battery option finds its
> way to my mailbox soon.

I may hop on the ferry and drive up for the day on Saturday, but I
probably won't decide until the night before (too many irons in the
fire these days).

72/73, Bob

--

Bob Nielsen, N7XY
Bainbridge Island, WA
IOTA NA-065, USI WA-028S

nielsen@oz.net
<http://www.oz.net/~nielsen>

Date: Wed, 11 Jul 2001 13:22:00 -0500
From: "Dennis Payton" <dpayton@fwi.com>
To: <qrp-1@Lehigh.EDU>

Subject: [102228] Polarized Capacitor Question
Message-ID: <001c01c10a36\$76ec6480\$2ba854d1@locke>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

I picked up a quantity of tantalum capacitors at a hamfest last weekend of various values and voltage ratings. Many are rated at 6 & 10 volts, which I figure are of little value to me, but I'm wondering, will putting two of them in series double the voltage rating? For example, could I substitute two 220 uf, 10 volt caps for a 100 uf, 16 volt?

Thanks,

Denny Payton, N9JXY
Auburn, IN

Date: Wed, 11 Jul 2001 11:39:52 -0700
From: "laura halliday" <marsgal42@hotmail.com>
To: qrp-l@lehigh.edu
Subject: [102229] Re: My Apology to EE's
Message-ID: <F155kEPF3cMnA0VYqMh00005d9f@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

A certain pinhead blabbed:

>Well, I had to go nuclear -- as usual! -- and put
>my foot in my mouth yet again!...

Enough. You know what this person said.

Since I'm obviously not welcome, I'm outta here.
The agreement was to lay off on the ad hominem/feminam attacks, but since this doesn't seem to apply any more, there is no point in my further participation in this list.

For the record, my degrees are CS and Aerospace Engineering. Not that it matters, not when is an arrogant obnoxious bitch - apparently the result of disagree with certain people of dubious mental stability and/or maturity, when one is a woman who has some notion of what she's talking about,

and doesn't find it necessary to apologize for same.

I've been called worse.

This is supposed to be a hobby, but I've hit my point of diminishing returns. I have better things to do with my time.

Good bye.

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89mg pied a terre..."
ICBM: 49 15.042 N 122 59.053 W - Hospital/Shafte

Get Your Private, Free E-mail from MSN Hotmail at <http://www.hotmail.com>.

Date: Wed, 11 Jul 2001 14:37:35 +0000
From: "Steven Weber" <kd1jv@moose.ncia.net>
To: qrp-l@lehigh.edu
Subject: [102230] DSPing
Message-ID: <200107111908.f6BJ8rc05493@wolf.ncia.net>
MIME-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7BIT

Boy, I wish I understood DSP theory better. I can grasp the basic concepts and pretty much follow the filter design theory, but translating that into actual working computer code is beyond me! Some day I'll have to buy one of those DSP eval boards and hope it comes with enough info and software to make some kind of sense out of all of it! Sure would be nice to be able to use this technology:-)

In the mean time, I stand in awe of those that can!

72,
Steve, KD1JV in the White Mountains of New Hampshire
"Melt Solder"
<http://www.qsl.net/kd1jv/index.html>

Date: Wed, 11 Jul 2001 14:37:36 +0000
From: "Steven Weber" <kd1jv@moose.ncia.net>
To: qrp-l@lehigh.edu

Subject: [102231] 2M QRP rig Design
Message-ID: <200107111908.f6BJ8pc05474@wolf.ncia.net>
MIME-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7BIT

Several people have asked how good the phase noise of the VCO board I built is. Frankly, I don't know, but I imagine it's not exceptionally good. There's a limit to how good the phase noise of a PLL stablized VHF VCO can be, and that's fair to marginal. After all, the VCO has 10's of KHz of drift that has to be constantly compensated for.

While the PLL stablized VCO may not be ideally suited for the LO of a receiver needed for weak signal work, it's probably good enough to make the transmitter portion out of. If a high band brick amp module is used for the PA, while not exactly cheap, (looks like they start at \$35 and go up from there), it would make a simple and pretty much fool proof way of building the transmitter. No tricky filter alignment or tune up required.

For the receiver, I'm thinking a classic down converter with an Xtal LO to 20 or 10M would be the way to go. Probably 20M as we all have a decent 20M rig, right?

In any event, we're still open to suggestions, so keep the ideas flowing!

72,
Steve, KD1JV in the White Mountains of New Hampshire
"Melt Solder"
<http://www.qsl.net/kd1jv/index.html>

Date: Wed, 11 Jul 2001 14:13:54 -0500
From: "Brockwell, Stephen E. CECOM SEC FSSE ILEX" <brockwse@fssec.army.mil>
To: "'qrp-l@lehigh.edu'" <qrp-l@lehigh.edu>
Subject: [102232] MFJ 9406 schematic help please
Message-ID: <F05408425630D4118DEE0000F840B5D485CB1D@alrsrv02.fssec.army.mil>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"

A kind soul sent a copy of the MFJ 9406 6m SSB rig to me when I needed one and now that I'm trying to actually work on the rig I lost the file. Does anyone have a copy they can send? The rig that I bought from a friend came

without the manual and the manual I downloaded from MFJ doesn't have the schematic.

Also I don't think that this rig has the CW adapter in it. What kind of trouble is there in modifying it to add cw or should I just get the cw adapter?

Steve KC5TTY
Elgin, OK

Date: Wed, 11 Jul 2001 19:19:59 +0000
From: alan.kaul@att.net
To: dpayton@fwi.com
Cc: "Dennis Payton" <dpayton@fwi.com>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [102233] Re: Polarized Capacitor Question
Message-ID:
<20010711191959.ITEA5127.mtiwmhc25.worldnet.att.net@webmail.worldnet.att.net>

Dennis:

When using capacitors in series the voltages ADD. A lot of the QRO amplifiers use 450v electrolytic capacitors in series (i.e. 4 caps = 1800v) ... however, many of the circuits also use individual bleeder resistors across the electrolytics (i.e. 300k @ 1 watt in parallel with each resistor).

You shouldn't have a problem.

72/73 de alan

--

Alan Kaul W6RCL e-mail: w6rcl@amsat.org
<http://worldnet.att.net/~alan.kaul/index.html>

Date: Wed, 11 Jul 2001 14:22:52 -0500 (EST)
From: <igeq100@iupui.edu>
To: laura halliday <marsgal42@hotmail.com>
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [102234] Re: My Apology to EE's
Message-ID: <Pine.GS0.3.96.1010711142000.3807C-1000000@jade.iupui.edu>
MIME-Version: 1.0

Content-Type: TEXT/PLAIN; charset=US-ASCII

Laura -

I for one am very sorry to see you go, because I have enjoyed your posts even if I can't keep up with them technically. I am also very sorry that ad feminem language/attitudes are surfacing on this list, which I also value.

Please consider rejoining the list when you think people have had time to reconsider their attitudes.

72,

Rich Meiss, WB9LPU

On Wed, 11 Jul 2001, laura halliday wrote:

> A certain pinhead blabbed:
>
> >Well, I had to go nuclear -- as usual! -- and put
> >my foot in my mouth yet again!...
>
> Enough. You know what this person said.
>
> Since I'm obviously not welcome, I'm outta here.
> The agreement was to lay off on the ad hominem/feminam
> attacks, but since this doesn't seem to apply any more,
> there is no point in my further participation in
> this list.
>
> For the record, my degrees are CS and Aerospace
> Engineering. Not that it matters, not when is an
> arrogant obnoxious bitch - apparently the result
> of disagree with certain people of dubious mental
> stability and/or maturity, when one is a woman
> who has some notion of what she's talking about,
> and doesn't find it necessary to apologize for
> same.
>
> I've been called worse.
>
> This is supposed to be a hobby, but I've hit my
> point of diminishing returns. I have better things
> to do with my time.
>
> Good bye.
>

> Laura Halliday VE7LDH "Que les nuages soient notre
> Grid: CN89mg pied a terre..."
> ICBM: 49 15.042 N 122 59.053 W - Hospital/Shafte
>

> Get Your Private, Free E-mail from MSN Hotmail at <http://www.hotmail.com>.
>
>

Date: Wed, 11 Jul 2001 13:33:11 -0600
From: "Jerry McCollom W0MC" <w0mc@club-pre.org>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [102235] W0MC Cub Fox Log
Message-ID: <005b01c10a40\$52890260\$a3ff999c@fcjmc67481>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Hi Folks,

Well, I probably could have resumed operations at around 0340, but I stayed QRT with still the occaisional lightning flash/roll of thunder in the area. I'm a "better safe than sorry" kind of guy. I'd be glad to reschedule a makeup cub session given I had to cut this one way too short.

Conditions were poor as has been noted. Lots of QSB. East and west coast stations were strong, closer-in stations were very weak. Towards the end there were plenty of static crashes from the surrounding lightning to make things really difficult!

So, here is the meager log from 40-ish minutes of my part of the hunt. Drop me a line with any corrections and I'll finalize it shortly.

72,
Jerry
W0MC

W0MC Cub Fox Log
11 July 2001 Z

TIME	CALL	RST SND	RST RCV	ST	NAME	PWR
01:55	KB9YIG	339	329	IL	TONY	5W
02:01	W6ABC	579	559	CA	JACK	5W

02:05 N0RC 599 599 CO ROD 2W
02:11 K8CV 579 559 MI WALT 5W
02:14 K7FD 339 ??? OR JOHN 5W
02:16 K4GT 559 559 GA JIM 5W
02:19 N4ROA 559 579 VA DAN 5W
02:21 K4FB 549 549 FL PAUL 5W
02:30 N6XG 549 599 CA WALT 500mW
02:35 W5YR 339 559 TX GEORGE 5W
02:40 WA7SPY 579 559 CA GLENN 5W

Date: Wed, 11 Jul 2001 14:40:53 -0500
From: "Ed Manuel (N5EM)" <n5em@flash.net>
To: qrp-l@lehigh.edu
Subject: [102236] Re: My Apology to EE's
Message-ID: <4.3.2.7.2.20010711142832.00ba2340@pop.flash.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

Obviously, OUR great loss. I will miss Laura's posts.

However, I'm used to deleting messages from total idiots - its just part of the territory when you subscribe to a list. Folks, QRP-L has a lot of good info - but that's 10 - 20 % of the volume of the traffic on the list. If you don't want to lose 10%+ of your life living with high stress, ya just got to learn to chill and ignore this stuff and learn to use filters and the DELETE key. I have a permanent filter for FOX. Not that I have a single thing against the fox traffic, I just don't chase the fox. I NEVER see a message with FOX in the Subject. Same thing with RADIO SHACK. That's a new filter :-) - they are gone in the trash before I even look at the Inbox.

It's just part of the new information technology age.

And, if my post has offended anyone - you will not hurt my feelings one little bit if you delete this message!

At 11:39 AM 7/11/01 -0700, you wrote:

>Since I'm obviously not welcome, I'm outta here.

Date: Wed, 11 Jul 2001 15:57:31 -0400
From: "Charles Mabbott" <crmabbott@mediaone.net>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [102237] My Apology to EE's?
Message-ID: <GAECLOGOMILPLBGKKPEGOEAOCKAA.crmabbott@mediaone.net>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="US-ASCII"
Content-Transfer-Encoding: 7bit

Laura, Randy & everyone else,

Good grief, what family does not have a tussle or two.
This is a highly diverse family at that! This diversity
is what makes the exchanges so great.

It's a shame for anyone to pick up the marbles and leave.
Besides you should have saw my cousin and his sister,
this was nothing they had serious blood letting at times!
In this day in age, a little thicker skin is a good thing.

Take a pill, chill, it is only a hobby folks! At the
sound of the bell, come out with more good stuff I have
enjoyed the information being exchanged

I have never known highly qualified techi types to get
along all the time. What makes them good is strong
feelings on what they believe.

73 ES oo

=====

Chuck Mabbott

AA8VS

42 19' 52" N 83 28' 32" W

Grid Square EN82gh

Home Page: <http://aa8vs.dhs.org/aa8vs>

FP-113 MI-QRP#1212 Firebirds #2117

Date: Wed, 11 Jul 2001 15:03:12 -0500 (CDT)
From: ac5ez@webtv.net (Larry)
To: qrp-1@lehigh.edu
Subject: [102238] Laura
Message-ID: <25831-3B4CB100-896@storefull-111.iap.bryant.webtv.net>
Content-Disposition: Inline

Content-Type: Text/Plain; Charset=US-ASCII
Content-Transfer-Encoding: 7Bit
MIME-Version: 1.0 (WebTV)

Dont know what all that was about, but no gentleman would call a woman
a bitch , in public . That was wrong.

K1zw
Larry
Qcwa

Date: Wed, 11 Jul 2001 14:25:05 -0600
From: "David Ek" <ekdave@earthlink.net>
To: qrp-1@lehigh.edu
Subject: [102239] RE: My Apologies to EE's--You owe ALL of us an apology, Randy
Message-ID: <20010711202505.16756.qmail@earthlink.net>
Content-Type: text/plain; charset="iso-8859-1"
Content-Disposition: inline
Content-Transfer-Encoding: 7bit
MIME-Version: 1.0

Randy,

Usually I just ignore bad behavior on the list. However, when bad behavior drives
off valued list members, the rest of us suffer. You're making us suffer now,
Randy. Your temper tantrums are driving folks from the list. You personally drove
off Laura. I'm sure you're patting yourself on the back for that one. Don't expect
the rest of us to do so.

There is absolutely no excuse for what you wrote about Laura in your "apology",
nor for the comments you made in a previous email which prompted it. Please go
away, and don't come back until you learn that intelligent adults are capable of
disagreeing without name calling and temper tantrums.

Dave AB0GO

>Well, I had to go nuclear -- as usual! -- and put
>my foot in my mouth yet again! Let it be known
>...
>
>Randy

--

Get your free email from <http://webmail.earthlink.net>

Date: Wed, 11 Jul 2001 16:25:32 EDT
From: MEDIC8027@aol.com
To: <qrp-l@lehigh.edu>
Subject: [102240] 6 meters on the Sierra?
Message-ID: <110.22a7bf2.287e103c@aol.com>
Mime-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 7bit

I am looking for plans to build a band module for six meters to use with the Sierra. can anyone help?

Dwayne
ke4rvt

Date: Wed, 11 Jul 2001 14:31:02 -0600 (MDT)
From: "Paul Harden, NA5N" <na5n@rt66.com>
To: laura halliday <marsgal42@hotmail.com>
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [102241] Re: My Apology to EE's
Message-ID: <Pine.SUN.4.10.10107111256490.3641-1000000@shell.rt66.com>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Wed, 11 Jul 2001, laura halliday wrote:
> Since I'm obviously not welcome, I'm outta here.
> The agreement was to lay off on the ad hominem/feminam
> attacks, but since this doesn't seem to apply any more,
> there is no point in my further participation in
> this list.

Gang,
I'm clearing out my email and have read the original post slamming
Laura, Randy's quasi-apology, and now this from Laura all in the last
minute of my life

AND I'M PRETTY UPSET AT THIS!!!

There is no room on QRP-L for personal attacks. Particularly one that is based on race, gender or other disrimanatory content, or laced with profanity. I don't blame Laura for being upset and feeling targetted.

I have read Laura's posts for years and have always found them to be technically sound and accurate -- always a contribution to this list. There's 3000+ people on qrp-l, and only a few who take the time to contribute technically. Some of you complain about the void of technical posts, yet run off the few left who do contribute technically. Soon there will be nobody left.

Laura, please don't leave qrp-l. The vast majority always appreciate your contributions. You're always welcome here.

Kind of ironical when you consider the person attacking Laura came on qrp-l earlier to start a technical discussion and basically said "but if you're not nice to me, I'm out of here." A device that shells it out one way, but not the other, is called a diode.

I think the technical discussions started about DSP are great, and hope they continue by all.

72, Paul NA5N

Date: Wed, 11 Jul 2001 14:35:13 -0600 (CST)
From: Bruce Rattray <rattray@gpfn.sk.ca>
To: laura halliday <marsgal42@hotmail.com>
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [102242] Re: My Apology to EE's
Message-ID: <Pine.LNX.4.33.0107111431200.8542-1000000@neale.gpfn.sk.ca>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Pleas reconsider Laura....whenever I see a post from you, I stop and read it and learn something more....if you do exit, this list will have lost another fine "resource" (person)...I still remember the time I saw you on the television Space News...good stuff...bon chance mon ami...

..72/73 - Bruce (VE5RC+VE5QRP) QRP-C#1 QRP-L#886 ARCI#9683 Zombie#272
K2#2032 A-1 Operator Club - 10/10# 944 - SOC #11 & #12 - Whiner#10 -
"QRP! How sweet it is!" oo#148 "I am da man wit "DAH" paddle!"

Date: Wed, 11 Jul 2001 17:05:43 -0400
From: "Mark S. Adams, P.E." <msadams@acsu.buffalo.edu>
To: dmaliniak@penton.com, qrp-1@lehigh.edu
Subject: [102243] Re: NN1G out of circulation
Message-ID: <2733698144.994871143@oes-madams.facilities.buffalo.edu>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Disposition: inline

Hi Dave and Gang,

I had NN2G on my application also! K2QO was my first choice. I is FB because every QRPer on the planet knows of K7QO :-)

My XYL wanted me to get NE2RD. A couple of other neat choices were AE2DX and AE2CW as these have never been issued.

Mark K2QO

Mark S. Adams, P.E.
University at Buffalo
Occupational and Environmental Safety
220 Winspear Avenue
Buffalo, NY 14215-1034
Tel: 716.829.3301 Fax: 716.829.2704
Pager: 716.774.2260

Date: Wed, 11 Jul 2001 17:02:53 -0400
From: "N3BJ" <qrpdx@earthlink.net>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [102244] Re: My Apology to EE's
Message-ID: <004601c10a4c\$db095a20\$13c1323f@hppav>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Yes, Laura, please stay. Don't let the turkeys get you down.

You have posted most valuable information on the list about the more obscure QRP rigs from Japan and that has been very educational for me and the group.

Alan, N3BJ
Bent Mountain, VA

----- Original Message -----

From: "Bruce Rattray" <rattray@gpfn.sk.ca>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Sent: Wednesday, July 11, 2001 4:35 PM
Subject: Re: My Apology to EE's

> Pleas reconsider Laura....whenever I see a post from you, I stop and read
> it and learn something more....if you do exit, this list will have lost
> another fine "resource" (person)...I still remember the time I saw you on
> the television Space News...good stuff...bon chance mon ami...
>
> ..72/73 - Bruce (VE5RC+VE5QRP) QRP-C#1 QRP-L#886 ARCI#9683 Zombie#272
> K2#2032 A-1 Operator Club - 10/10# 944 - SOC #11 & #12 - Whiner#10 -
> "QRP! How sweet it is!" oo#148 "I am da man wit "DAH" paddle!"
>
>

Date: Wed, 11 Jul 2001 10:23:39 -0400
From: John Wagner <john@neknetwork.com>
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [102245] FOX: Foxless in VT
Message-ID: <3B4C616B.495C22A8@neknetwork.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

KB9YIG was in and out with QSB last night. I took a few shots at him (some right on his calling freq due to my outsmarting myself and turning on RIT and XIT at the same time - SORRY!!!!!!) but I could never get him. Heard a few "well knowns" in there getting pelts though. Sounded like Tony was doing a great job last night.

W0MC was another story (with a similar ending). I heard him well enough once to take a shot. The rest of the time I could hear the hounds yipping at him. Saw that he quit due to WX - good call.

I thought both of these Foxii would be easy shots. I've worked Tony before on 20m (/M from my car less) and I can usually wet a string and

yell into an attached tin can to work CQ at QRP levels but the condx just didn't work out last night.

So I'm suffering from an early week shortage of fox fur up here in the Northeast. Trades welcome - hope the Thursday hunt goes better!

Thanks KB9YIG and W0MC for being Cub Foxii - enjoyed the hunt.

73 de John, KB1ENS

--

John Wagner - john@neknetwork.com
Web page: <http://www.neknetwork.com>

Date: Wed, 11 Jul 2001 17:24:29 -0400
From: Pete Burbank <plburbank@kih.net>
To: qrp-l@lehigh.edu
Subject: [102246] re. Apology to EEs
Message-ID: <5.0.2.1.0.20010711171222.00a8f790@KIH.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

There seem to be a few Male Chauvinist Pigs on this list. Personally I always ponder what Laura has to say and hope she stays. ("ponder" meaning that I don't always understand her) HI!

IMHO there is plenty of room here for everybody and no excuse for calling someone a bitch.
72/73/88 to all
Pete NV4V Kentucky

Date: Wed, 11 Jul 2001 17:32:07 EDT
From: RangerSF5@aol.com
To: qrp-l@lehigh.edu
Subject: [102247] Need help locating lost E mail
Message-ID: <ba.166edf8a.287e1fd7@aol.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="US-ASCII"
Content-Transfer-Encoding: 7bit

Is there anyone on this list that knows of a person with an E mail that starts with dduffer.
Sorry thats all I have to go by and I also forgot his name.

He never post on the list except on rare occations.
Thanks for any help anyone can give.

73

Bob

WA2HOQrp <tm>

Date: Wed, 11 Jul 2001 23:07:23 +0100
From: "Steve Farthing" <stephen@stevef.demon.co.uk>
To: "Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>
Subject: [102248] Moderation of this list, its time
Message-ID: <MABBLGJEEFHCJIEHNCOFAEEEECAA.stephen@stevef.demon.co.uk>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="Windows-1252"
Content-Transfer-Encoding: 7bit

Ladies and gentlemen,

I subscribe to two QRP lists, this one and the GQRP one. In my humble opinion the GQRP list works better because it is moderated so people stick to the ground rules. If the moderators get sent something that is not within the rules they reject it and tell the poster why. So the sender has the chance to change their message accordingly and re-submit it or forget about it. This helps those of us who post messages that later on we wish we had not. We have lost a couple of really ace contributors lately because other list members had insulted them. I'll especially miss Laura's contributions. If this list were moderated the insults would not have got through and they would still be with us. Behaviour on this list has declined since I first subscribed some years back and that's a pity.

This list is truly international. Many of us outside the USA have to pay quite a lot to access the Internet. In my case it's about 50 dollars a month, plus a charge every time I call my ISP. The longer I am on the more I have to pay. So it would be really helpful if we kept off topic posts to a minimum. Moderation would ensure that this happened.

So, over to you to discuss the matter. It would be really nice if you kept the word Moderation in the title of your posts so that those with no interest in the thread can put it in their kill files.

Steve G0XAR

Date: Wed, 11 Jul 2001 16:06:53 -0600
From: "Marshall Emm" <mgemm@mtechnologies.com>
To: qrp-l@lehigh.edu
Subject: [102249] FOX: Results after Week 2 (Hunt 4)
Message-ID: <3B4C799D.10940.185111D@localhost>
MIME-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7BIT

Results after week two have been posted on the web site at
<http://www.cqc.org/sfox> .

I had an idea that Hunt 4 might separate some sheep from some goats, and while it did just that, we still have a surprising 35 hounds with perfect scores-- 4 hunts, 4 pelts.

There were some supprises in the Teams competition, too, but I'll leave it to Bruce to comment on that.

Marshall Emm, N1FN
Milestone Technologies, Inc.
(303) 752-3382
<http://www.mtechnologies.com>

Date: Tue, 10 Jul 2001 21:22:37 -0600 (MDT)
From: muglesto@ecentral.com
To: Dennis Ponsness <wb0wao@hotmail.com>
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [102250] Re: PSK-31 Computer Question....
Message-ID: <Pine.LNX.4.10.10107102120520.755-100000@mugleston.mugs.net>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

That should work - if you want to go even lighter on the equipment you can run a Linux box GUI and use the ASCII graphic package that comes with TWPSK or use TWPSK and it's GUI graphics.

Brad Mugleston, KI00T
Aurora, Arapahoe Cty, Colorado
DM79oq 39.692500N 104.802600W
CQC #170, QRP-L #316, NorCal #2934

On Sat, 7 Jul 2001, Dennis Ponsness wrote:

> OK Gang,
>
> I hope that this isn't one of those "Duhhhh" questions, but here it
> goes....
>
> In true QRP fashion (and because it is considerably cheaper!), I am
> going to build up a computer to utilize PSK-31 and the Warbler kit I
> ordered. Now, for the question:
>
> I checked the Digi-pan software site and it says "Digipan works best on a
> 100 MHz or faster 486 or Pentium processor and requires Windows 95 or
> greater", ok, now here is the question... will a AMD K6-2 processor, AMD
> Duron, AMD Athlon, or a Intel Celeron CPU running at over 100 MHz be
> compatible with the Digipan software? TNX...
>
> 72/73
>
> Dennis Ponsness - WB0WAO
> EN84ij Iosco Cty, Mich.
> WAC WAS DXCC VUCC WPX
> NJ-QRP #329
>
> -----
> Get your FREE download of MSN Explorer at <http://explorer.msn.com>
>
>

Date: Wed, 11 Jul 2001 18:11:40 -0400
From: "Phil (VA3UX)" <phil@vaxxine.com>
To: Qrp-l@Lehigh.EDU
Subject: [102251] RE: My Apologies to EE's--You owe ALL of us an apology, Randy
Message-ID: <5.0.2.1.0.20010711180533.009fd660@vaxxine.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

It might be time for the list administrator/moderator to step-in. I belong to other lists where such behavior results in a suspension or termination from the list, with a post from the administrator/moderator stating that such action has been taken. If two members want to get into a scrap, they can do it 'til the cows come home - off the list.

I agree with Dave's comments below. Seems to me that Randy may have been the initiator of some harsh words and bad feelings a few months back. Time to grow-up or go away.

Phil

At 02:25 PM 7/11/2001 -0600, David Ek wrote:

>Randy,

>

>Usually I just ignore bad behavior on the list. However, when bad behavior
>drives off valued list members, the rest of us suffer. You're making us
>suffer now, Randy. Your temper tantrums are driving folks from the list.
>You personally drove off Laura. I'm sure you're patting yourself on the
>back for that one. Don't expect the rest of us to do so.

>

>There is absolutely no excuse for what you wrote about Laura in your
>"apology", nor for the comments you made in a previous email which
>prompted it. Please go away, and don't come back until you learn that
>intelligent adults are capable of disagreeing without name calling and
>temper tantrums.

>

>Dave AB0GO

>

>

>

>

> >Well, I had to go nuclear -- as usual! -- and put
> >my foot in my mouth yet again! Let it be known

> >...

> >

> >Randy

>

>--

>

>

>-----
>Get your free email from <http://webmail.earthlink.net>

Date: Wed, 11 Jul 2001 18:24:19 -0400

From: John R Kirby <n3aaz-qrp@juno.com>

To: marsgal42@hotmail.com, qrp-1@Lehigh.EDU

Subject: [102252] Laura . . .

Message-ID: <20010711.182514.-149595.0.n3aaz-qrp@juno.com>

MIME-Version: 1.0

Content-Type: text/plain

Content-Transfer-Encoding: 7bit

How sad.

I will miss your input.

Based on SUBJECT line, I do not OPEN all qrp-l posts.

However, I open select posts based only on the FROM line,

>From: "laura halliday" <marsgal42@hotmail.com> ALWAYS OPEN.

Please reconsider.

John
N3AAZ
FM 19 xa

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<http://dl.www.juno.com/get/tagj>.

Date: Wed, 11 Jul 2001 22:37:49 +0000
From: Garie Halstead <k8kfj@ntelos.net>
To: Pete Burbank <plburbank@kih.net>
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [102253] Re: re. Apology to EEs
Message-ID: <3B4C8EED.4673B015@ntelos.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

On Wednesday, 11 July 2001, Pete Burbank wrote:

> IMHO there is plenty of room here for everybody and no excuse for calling
> someone a bitch.

Hey Pete, a few days ago, I sent an email to the LIST MANAGER about a recent name-calling situation here on the list. The List guidelines plainly state that it is expected that one is to act as an adult and politeness was also used in the wording. I for one would have liked to have seen the name-calling stopped (people were being referred to as idiots).

Would you believe, the list manager (whoever he/she may be) didn't even have the common courtesy to respond.

If (after having read my email and investigated the name-calling) the List Manager would have posted a simple msg on the list concerning this

type of behavior ... this latest incident may not ever occurred.

72 //Gary *K8KFJ*
West Virginia

Date: Wed, 11 Jul 2001 15:50:52 -0700
From: Jim Lowman <jmlowman@ix.netcom.com>
To: k8kfj@ntelos.net
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [102254] Re: re. Apology to EEs
Message-ID: <3B4CD84C.40A4CC5E@ix.netcom.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Hi, Garie...I'm not sure that there is a list manager. The last one we had seemed to cause more problems than he solved.

Back when Chuck Adams ran the list, things like this didn't get out of hand.

Like all things, this will die down. It IS a shame to lose a frequent contributor.

72 de Jim - AD6CW

Garie Halstead wrote:

> Hey Pete, a few days ago, I sent an email to the LIST MANAGER about
> a recent name-calling situation here on the list. The List guidelines
> plainly state that it is expected that one is to act as an adult and
> politeness was also used in the wording. I for one would have liked
> to have seen the name-calling stopped (people were being referred to
> as idiots).
>
> Would you believe, the list manager (whoever he/she may be) didn't even
> have the common courtesy to respond.
>
> If (after having read my email and investigated the name-calling) the
> List Manager would have posted a simple msg on the list concerning this
> type of behavior ... this latest incident may not ever occurred.
>
> 72 //Gary *K8KFJ*
> West Virginia

End of QRP-L Digest 2247
